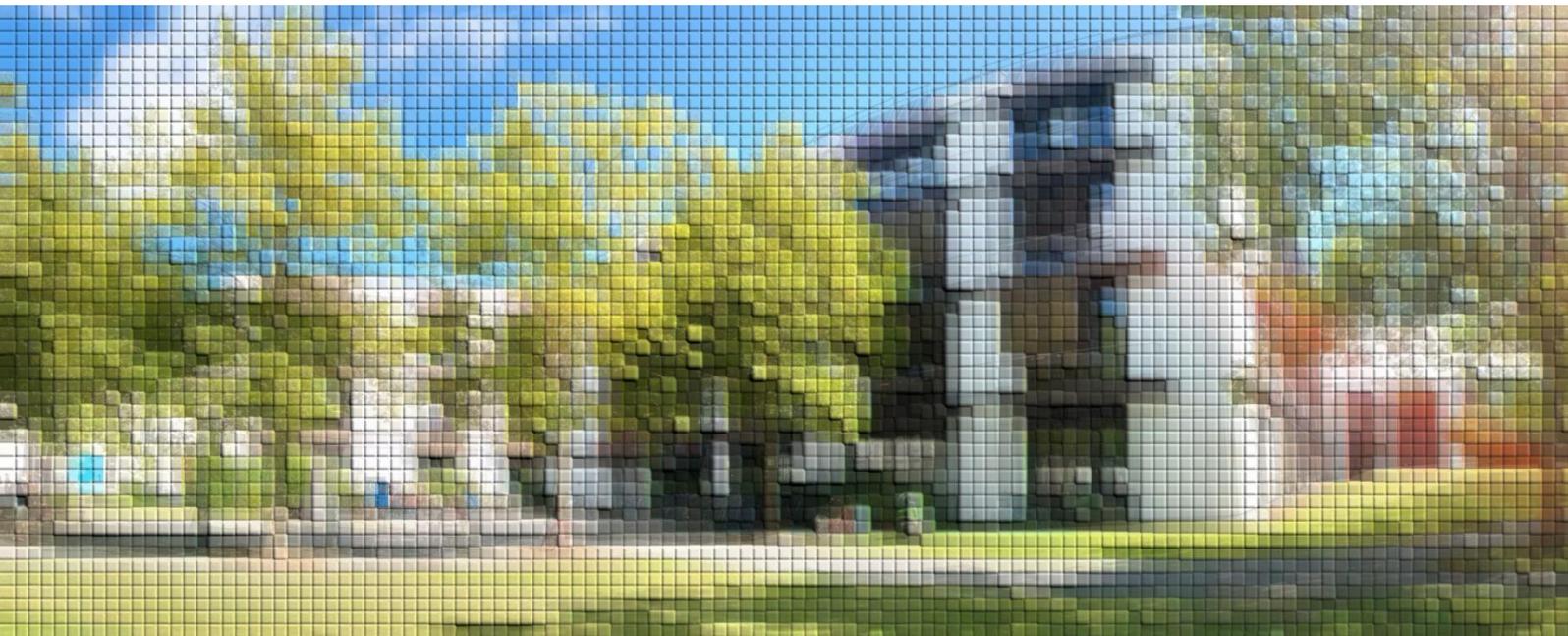


# JUSTfind - finding scientific literature

An introduction to literature search and using the library at Justus-Liebig University Gießen and beyond



Frank Waldschmidt-Dietz



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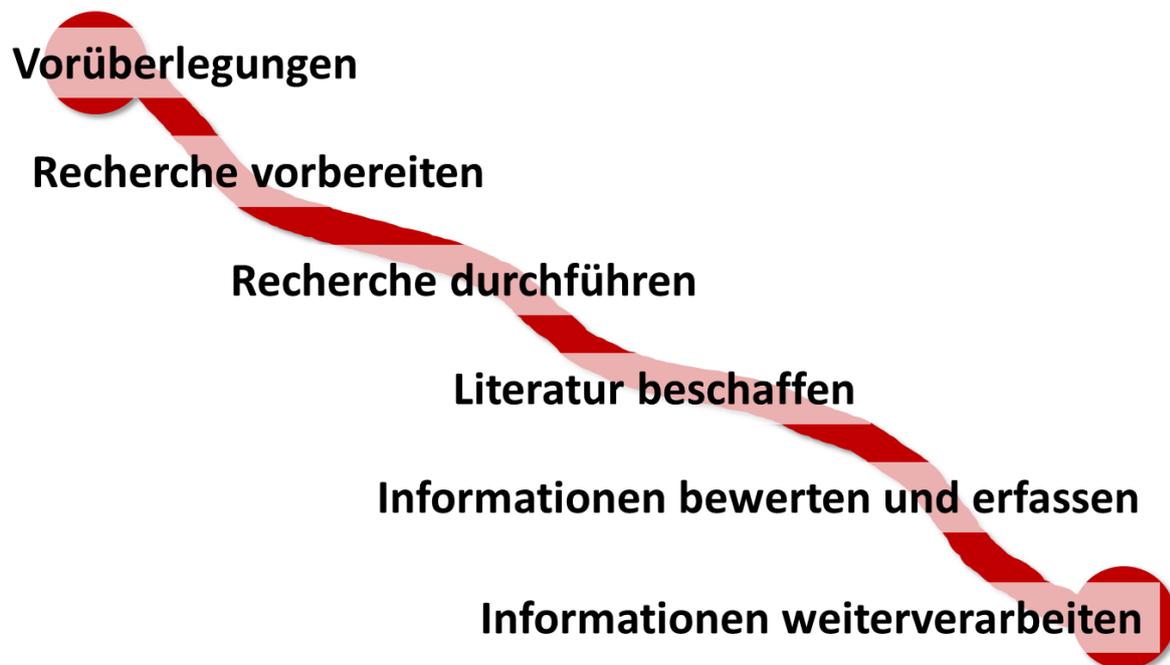


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# CENTRAL THEME OF THE BOOK:



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## 1. Introduction

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### 1.1 JUSTfind - first things first

This book starts with an unusual promise: After reading this very first page, you will already have learned the most important thing about scientific literature search. Visit the following link and bookmark the internet page that opens! This link takes you to the start page of the search portal **JUSTfind** of the university library of JLU Gießen. Of course, you can also get there via the library homepage.



<https://hds.HeBIS.de/ubgi/>

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Just try the search and come back here afterwards. Yes, now! No matter if you are using a laptop, smartphone, tablet or PC. If you cannot think of a search word just now, just try e.g. "learning aids".

The following videos introduce JUSTfind and the search process: The first two videos provide a short overview; the third video already provides an introduction to the practical search with JUSTfind and takes up the central theme of this e-book.

	Web address	QR code
<b>JUSTfind in one minute</b>	<a href="https://www.youtube.com/watch?v=t3c7b3s7yq8">https://www.youtube.com/watch?v=t3c7b3s7yq8</a>	
<b>Interface overview</b>	<a href="https://www.youtube.com/watch?v=nz1mrbHWeys">https://www.youtube.com/watch?v=nz1mrbHWeys</a>	
<b>The search with JUSTfind (detailed)</b>	<a href="https://www.youtube.com/watch?v=REgVrv7GC8Q">https://www.youtube.com/watch?v=REgVrv7GC8Q</a>	

Did you notice in the videos and during your search that **JUSTfind** does not just give you books but also journal articles in the second tab? Knowing both tabs is important: Only when you consider books AND articles, your literature search will be complete. You then combine the search for books and other media in the local holdings with current articles in specialist journals. If you have overlooked the tab "Articles and more" during your first search, why not try it again.

Now you have already learned the most important things about scientific literature search and have even tried it!

## 1.2 Why the rest of this book is also important for you

In this book, you will learn how you can obtain literature and other media and information relevant for your study course in high quality, quickly and generally free of charge. And of course, we also explain how you can access articles, e-books and more from home with a so-called VPN connection.

The search portal JUSTfind by the university library of JLU Gießen is at the centre of this book. If you are at another university, you can use JUSTfind as well but not to the same extent. However, you will certainly find it easy to apply the information to the search portal of your own university.

If you just started your university course, you may enter new territory in comparison to school when it comes to literature search. If you had to do a search in school at all because material was not provided in exceptional cases, then you would usually have used Google and Wikipedia. However, the university library offers much more advanced search tools that suit the special requirements of a university. This search must be "scientific", which usually does not apply to sources of information on the internet. This book will tell you where exactly these differences are.

The required literature will be provided for you only in certain cases, for example in form of a literature list. Very often, you will face the challenge of finding information yourself. You must define your requirements, conduct your own search, acquire literature and evaluate it.

In this book, we will provide you primarily with the knowledge necessary to do this. You will gain basic information competence, which will be of great importance during your university course but also afterwards. Therefore, it will be worth it to keep reading: That's a promise. At the end of the book, you will be a professional in finding the required literature quickly and easily.

## 1.3 What this book does not provide but is also important

This book wants to be of help for finding scientific literature and expects that you already have found or have been given a topic for your thesis. If you are still looking for a topic, another starting point might be more useful: Get a book e.g. from the university library on research methods and make yourself familiar with the basics, e.g. Wyrzens 2014, Kremer 2014, Stickel-Wolf und Wolf 2013 or Merk et al. 2010. Some of them are available as e-book or online resource but visiting the library will definitely be worth it.

Alternatively, you can find helpful introductions online. Interesting online courses are, for instance, ILIAS, the central platform of JLU Gießen:

Further information	Web address	QR code
Public ILIAS learning materials	<a href="http://ilias.uni-giessen.de/ilias/goto.php?target=cat_265&amp;client_id=JLUG">http://ilias.uni-giessen.de/ilias/goto.php?target=cat_265&amp;client_id=JLUG</a>	

## 1.4 The structure of this book and how to use it

You *can* read this book from front to back, of course; in this case, you would have extensively familiarised yourself with literature search. The central theme of this book is the sequence of a complete search process. But you can also get an overview first, e.g. in the list of contents, by thumbing through the book or reading selected passages. You can also use it as reference book for questions arising later. A professional approach, or reading technique, is described in ➔ chapter 6.2 (PQR4R

method), which you can also apply to this book: After a first orientation, you would formulate questions you want this book to answer for you. For example, you may be interested in: "How is the literature structured in the university library and where do I find it?", "Where do I find e-books?" or "How do I find good search terms?". You then search for your specific answers.

If you do not know certain terms (yet) when reading the book, it is a good idea to have a look at the index list at the end of the book or at the glossary linked there.

In ➞ chapter 2, we will first examine the question of what characterises the different media as scientific and which approach are we taking in the context of the advancing digitalisation and multimodalisation. Then we will get an overview of the media landscape in order to find out, where a scientific literature search is reasonable. At the end, we will show how it is possible to maintain an eye for the important things and special requirements of the subjects in this flood of information.

In ➞ chapter 3 we discuss the search preparation. There is a difference whether you can use a literature list or whether you have to find your own literature for a topic.

The topics in ➞ chapters 4 (Doing the search) and 5 (Acquiring literature) cannot always be separated clearly from each other. Especially for resources available online, searching for and acquiring literature merge into one joint process: The search tool offers, for example, a direct link to an article or e-book. Or you may discover an interesting book in a shelf of your library near where you were looking so that finding literature leads to a new search at the same time. For this reason, some topics are covered in both chapters and you will find cross-references.

How you can evaluate the found information is explained in ➞ chapter 6. There you can also find out how you can improve your reading efficiency.

Correct citation, preparing a correct reference list and getting support from a literature management programme when doing so is described in the last stage of the search process in ➞ chapter 7.

## 1.5 The links and QR codes in the book

This book wants to build bridges: The e-book in PDF format contains a lot of links that utilise the entire spectrum of online learning. They are usually placed in a table at the end of the chapter and can be clicked. Arrows (➞) in the text also indicate that you can go to the respective location by clicking on the chapter number.

The format also allows printing the book and it can also be ordered as book-on-demand. The QR codes serve the same purpose here: Regardless if you are using a smartphone or a tablet, etc., you can open links that cannot be used on paper using the QR codes.

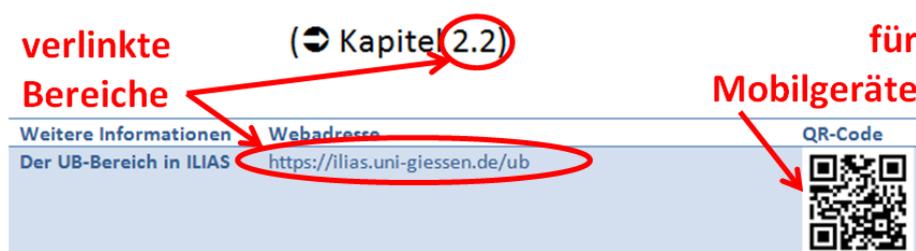


Figure 1: Linked areas and QR codes in the book

On your mobile device, you need a QR reader to do this, which is available in the respective app store. This reader decodes the QR code and displays the corresponding site.

Tip: If there are several QR codes in a table, simply cover the adjacent codes with your fingers to make it easier to scan the desired code.

If a link does not work, it might mean that it was recently changed or the site has been removed entirely. Another possibility is that the site is only available from the JLU Gießen network or can only be accessed completely from the university network for copyright reasons. In this case, switching to a VPN connection should solve the problem. It is best to use this connection when you want to understand the examples or follow the links. You can find instructions on how to do this in ↻ chapter 5.3.

Please report defective links in the discussion forum - the updated links are also published there before they are incorporated in the new edition of the book:

	Web address	QR code
<b>Discussion forum</b>	<a href="http://ilias.uni-giessen.de/ilias/goto.php?target=frm_49303&amp;client_id=JLUG">http://ilias.uni-giessen.de/ilias/goto.php?target=frm_49303&amp;client_id=JLUG</a>	

## 1.6 Exercises

We have compiled exercises for you on different topics, with which you can test your new knowledge. In addition to classic tasks, you can also use our interactive learning modules on ILIAS, which integrate teaching videos, spoken text and the search portal in one interface. The service can be accessed via the university library space on the JLU teaching platform ILIAS:

Further information	Web address	QR code
<b>The university library space in ILIAS</b>	<a href="https://ilias.uni-giessen.de/ub">https://ilias.uni-giessen.de/ub</a>	

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## 2. First thoughts on literature search

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Before really starting, it is important to consider and realise a few things in advance:

- "Scientific-ness" is talked about a lot at university, but what does it mean? And what really is "scientific literature"? (☞ chapter 2.1)
- Is a library search really contemporary in times of the internet (☞ chapter 2.2)?
- Is there something else in the library other than books? (☞ chapter 2.3)
- Does the internet with Google, Wikipedia, etc. not offer everything I need? (☞ chapter 2.4)
- What better options do the search tools in the library have to offer? (☞ chapter 2.5)
- What exactly is this "JUSTfind" (☞ chapter 2.6)?
- Consider the peculiarities of each subject culture (☞ chapter 2.7)!
- How can the variety and the requirements be dealt with (☞ chapter 2.8)?
- The university library can help in all aspects of literature search and beyond (☞ chapter 2.9).

### 2.1 The difference between "scientific" literature and other sources

The difference between knowledge and belief, opinion and assertions is mainly that statements are either already verified or at least can be verified. This can and must be demanded from texts and literature within the scientific context. Certain formats and publication media such as scientific journals or books have been established over a long period of time and therefore are something like the safe port when it comes to literature search. However, new structures and publication formats are emerging at the moment that may meet these demands. Other formats such as (scientific) blogs, on the other hand, do not make this claim to begin with and rather serve a quick knowledge transfer but have their place in the scientific community because of this.

In general, you must be vigilant with all literature sources and realise their quality and eligibility. And your examiners to whom you submit a respective assignment must be able to approve your literature selection. You should have at least a conclusive rationale when including certain websites, Wikipedia or other sources that are unusual to use in science.

Scientific literature does not necessarily refer to a certain physical format. Hence, it does not have to be printed books or journals. It would be more appropriate to speak of "information search" or "media search" instead of "literature search". And yet, you will find the largest percentage of relevant material in books and scientific journals. Both categories are often available as e-books or electronic journals these days. For the latter, the digital version is now the norm rather than an exception.

The quality criteria applied to scientific literature are discussed in the following chapter, where we distinguish them from other literature.

#### 2.1.1 Quality criteria of scientific texts/literature

The quality of scientific texts/scientific literature is mainly characterised by the fact that it is...

- ... reproducible and verifiable,
- ... its statements are evidenced with citations (based on previous knowledge),
- ... they refer to relevant and serious specialist literature/media (not any nonsense),
- ... they consider current research,
- ... are written in a neutral and factual manner, i.e. strive to be objective,

- ... structured systematically,
- ... have a reference list,
- ... are subject to a review process (someone else has read it before publication),
- ... read and then (critically) discussed in the scientific community,
- ... must generally be verifiable (falsifiable).

### 2.1.2 Grey and other literature

Research reports and other partly alternatively published literature is called "grey literature" because it is not published in the traditional way via publishers and it is also not available in bookstores. These can be publications by the university itself that are partly saved on document servers, e.g. in the Gießener Elektronische Bibliothek (GEB, Gießen Electronic Library) described in ↻ chapter 5.3.4. This also includes working papers and other sources not yet published, if they generally meet the standards described above (Wytrzens 2014, S. 92f). All grey literature is characterised by the fact that it generally has not (yet) been subjected to a more or less strict review procedure, which is to secure the scientific quality.

In addition to grey literature, there is "other" literature that does not even meet these criteria. This can include, for example, documents of any kind found on the internet, blog or forum contributions, Wikipedia articles, etc. These sources may have their place but generally are not considered scientific and should be evaluated especially critically.

### 2.1.3 Online accessibility of scientific sources

At the moment, it is (unfortunately) rarely possible to find scientific literature on the free internet. You can find bibliographic information easily, but the texts themselves are generally inaccessible. However, the digital services by the university library want to make these contents accessible to you as best as possible. The majority of these books are still sold as printed media but more often they are also sold as additional or complementing e-books. Journals and journal articles are often available in digital format and are purchased for you by the library.

To get access to these scientific sources, it is usually sufficient to be able to identify yourself as member of the university. For digital sources, this is either done by using the university network (e.g. via *eduroam*) or by establishing a VPN connection to the university from home. You can find further information about this in ↻ chapter 5.3.

## 2.2 Change of the last years and future possibilities

We are currently living in an exciting period of change from an analogue to a digital society. The media themselves change drastically in this process; the internet becomes the leading medium. Not only information consumption but also the (literature) production and scientific communication are changing.

### 2.2.1 Media change

At the moment, printed books still dominate in libraries but there is a trend towards digital versions especially in form of e-books. When it comes to journals, one can almost speak of a replacement: The number of (often only) electronically usable journals has been hugely exceeding the printed equivalents actually available in the journal reading rooms for many years. The quick, direct access from home often replaces the physical visit in the library. This increases the speed of knowledge acquisi-

tion and scientific work dramatically: A lot more information can be processed with a lot less effort, and the full text search in digital documents offers completely new possibilities.

The changes also not only refer to the receptive aspect of established media formats like books and journals. A hugely simplified and democratised production is added to this: Writing and publishing a book or an article and creating their layout at one's own PC has almost become normality; freely accessible, so-called open-access books and journals find more and more readers.

Another change refers to the explosion of media formats: Papyrus, parchment and paper have been the carrier media for millennia, while photography and sound and film technology in the 19th century mark the arrival of completely new media types. Some of these data carriers can still be found on library shelves (at the moment): DVDs, CDs and microfilms are the remaining witnesses of a bygone time.

New media formats have just emerged or are still developing: Digital documents can be enriched with videos, animations, simulations or online tests or connected to other sources with links. Where only drawings, Figures or photographs could be used to promote understanding of a subject, interactive elements can now be integrated that invite to be tried.

### 2.2.2 The internet

The internet started its triumphant success at the turn of the millennium; it started to push the physical media into a niche. Most contents can eventually be digitised and virtualised and can then - often with added value - provided online. Audio and video documents can now only be transferred via the internet and its different services to current end devices such as tablets or ultrabooks; there has been no room for CD drives for years.

Libraries have reacted and started fairly early to digitise their holdings as far as this was legally possible. Copyright, limited licences and other reasons prevent the implementation of a comprehensive digitisation (at the moment). Online catalogues and databases have replaced the old card indexes and shine with various precise possibilities to search literature holdings comfortably and independent of location.

At the same time, competition occurred: Literature is searched on Google, Wikipedia and other platforms more and more often. The classic literature search with OPAC (Online Public Access Catalogue) is pushed further and further into the background, while the worldwide platforms mentioned above seem to provide the required literature faster and better. The search on library websites seems boring and is often neglected in favour of the search interfaces that are already familiar. Discovery systems like **JUSTfind** try to provide the comfort of Google, Amazon and others also for professional literature search.

### 2.2.3 Web 2.0

The transition of the internet from a purely receptive to an interactive participation network is generally called Web 2.0. Today, you do not need specialist knowledge to contribute contents to the web or to distribute them via the internet. This becomes very clear in large portals such as Facebook, XING, YouTube, Flickr, Pinterrest, etc. There is a social network just for researchers with possibilities for publication called ResearchGate. Running your own website with Wordpress or similar, easy publishing in blogs, Wikis and forums is also part of the Web 2.0. Added to this are social bookmarking tools (e.g. Diigo), tools for collaborative reading or writing (e.g. with Google Docs) or exchange (e.g.

WhatsApp). Reading and commenting on books and articles together via the internet is also a relatively young trend.

*"The introduction of electronic publishing primarily resulted in one lasting transformation of the traditional information chain author – publisher/bookstore/agencies – libraries – reader/user/author (as consumer of scientific results). With electronic publishing, research results can be distributed within the scientific community faster, more inexpensively and by removing intermediaries like publishers, bookstores or libraries. Everyone can participate in this process from the desk at home or in the office/laboratory (author's own production- direct distribution)." {Schaefer-Rolffs 2013 #41D: 51}*

#### 2.2.4 The consequences of change for science

These developments change the communication in science again dramatically: The publication system as we still know it today that represents the quasi-standard (at the moment) can be briefly described as follows: Scientific texts (books or articles) are submitted to publishers, who first deal with quality assessment by entering accepted drafts in the peer review process. After a revision, they are published by the publisher who also handles marketing. Only this process allows the publication to be known to the scientific community where it is discussed and possibly reviewed (see Ball 2013, p. 80, see also p.27ff).

This formal path was a huge leap for scientific communication at the time compared to the rather informal exchange centuries before. Considering the described new possibilities offered by the modern internet, this formal path now seems very slow, sluggish and sometimes even prone to errors. Future scientific communication *could* start already during research by introducing topics in blogs, commenting on them, collecting them in Wikis or discussing them in forums. Publications are made online in advance, as draft, if necessary, and are subjected to an open peer review before the actual publication as open access.

You can find examples for scientific blogs here:

	Web address	QR code
<b>Blog portal for humanities/social sciences</b>	<a href="http://de.hypotheses.org/">http://de.hypotheses.org/</a>	
<b>Blog portal of the publisher Spektrum der Wissenschaft</b>	<a href="http://www.scilog.de/">http://www.scilog.de/</a>	

#### 2.2.5 Search 2.0

The Web 2.0 ("participation web") has also added to the literature search. At its core, it is about utilising search power more - one's own search power as well as others. The most well-known example surely is Wikipedia, which we will discuss in more detail later (➔ chapter 2.4.3). What only few people know: It is very easy to actively contribute your own knowledge in Wikipedia.

Another example is the search on e.g. Amazon.com: When you look at a book, suggestions like "Customers Who Bought This Item Also Bought..." and "What Other Items Do Customers Buy After View-

ing This Item?" are displayed. Simply by looking at or buying this book (or another item) you contribute to creating these suggestions. The reviews prepared by readers are often also helpful.

Social Bookmarking must be mentioned here as well. Social Bookmarks are bookmarks for webpages that are not only created locally on one's own computer but publically in the web via services such as Diigo or Delicious. On one hand, these tools allow using interesting links across different computers. On the other hand, others can also benefit from your bookmarks (unless you have labelled them as private). With so-called tags, these links can be indexed upon creation so that they can be found easily. That also means that you can follow other users that are interested in the same topics as you.

You can familiarise yourself further with the topic Search 2.0 in the book "Recherche 2.0" (Search 2.0) (Müller et al. 2013), which can be downloaded as e-book.

	Web address	QR code
<b>Diigo</b> (Social Bookmarking and knowledge management)	<a href="https://www.diigo.com/">https://www.diigo.com/</a>	
<b>Delicious</b> (Social Bookmarking)	<a href="https://delicious.com/">https://delicious.com/</a>	

### 2.2.6 Summary

Before, when there were not so many types of media, the situation was clear and it was possible to say which of these were considered scientific and which were not. Eventually, this issue is not dependent on the medium but on the fact that the agreed quality standards were met. However, there are new formats, that are (still) in a grey area but have their place already today because of their up-to-dateness.

## 2.3 Possible media - What can be searched?

You may have already noticed that we use different terms in this book. Sometimes we speak of information or media in a very generalised way, sometimes we speak of texts, sometimes books or journals or simply literature. All these media can be accessible online or offline; a title can be available as e-book or in printed format. Most of the time you will be dealing with information in written format but that does not have to be the case. What about a speech or a presentation that was recorded or transcribed? Are audiobooks actual books? What about Wikipedia, blogs or other internet sources?

We want to clear things up in this and in the next chapter and show you which types of media there are and which you can use and are relevant for you.

### 2.3.1 Books

Books are mostly printed on paper and cannot be changed after publication. However, if changes have to be made, they can only be incorporated in a new edition. E-books are mostly digital one-to-one representations of printed books in PDF format so that the monitor basically replaces the paper.

We distinguish between two categories of books, which are introduced in an overview here:

### 2.3.1.1 Monographs

What we call a book often is a so-called monograph. A monograph...

- ... deals with one single subject,
- ... considers latest research,
- ... is mostly written by one single author,
- ... often contains a reference list.

Monographs are also called **independent publications**.

### 2.3.1.2 Sammelbände

*Sammelbände* or nonce-volumes contain **articles** in form of a book; they are often **conference proceedings** or *Festschriften*. You may have already guessed: An article in a *Sammelband* is a **dependent publication**.

### 2.3.1.3 Reference works

Reference works summarise fields of knowledge and therefore are very suitable as an introduction. They offer a quick overview of topics, subjects, authors or works. The most important forms of reference works are briefly introduced below:

#### 2.3.1.3.1 Lexicons and encyclopaedia

Today, a lexicon is considered a reference book providing a summary of factual information. Printed lexica are mostly in alphabetic order and are often referred to as "specialist dictionary". If such a reference book is particularly comprehensive, we speak of an encyclopaedia. The most well-known encyclopaedia probably is Wikipedia (➔ chapter 2.4.3), which no longer has an alphabetical order due to its structure as Wiki.

#### 2.3.1.3.2 Dictionary

The term "dictionary" is mostly used in the sense of a *language* dictionary. However, it is not possible to make a clear distinction. In dictionaries, the words as such are more focused on. This, of course, includes the classic foreign language dictionaries as well as e.g. Wiktionary as language dictionary, which therefore sets itself apart from Wikipedia instead of building upon it. It is best to really see this difference using the German word "Literatur" as an example:

	Web address	QR code
The German word "Literatur" on Wikipedia	<a href="http://de.wikipedia.org/wiki/Literatur">http://de.wikipedia.org/wiki/Literatur</a>	
The German word "Literatur" on wiktionary	<a href="http://de.wiktionary.org/wiki/Literatur">http://de.wiktionary.org/wiki/Literatur</a>	

#### 2.3.1.3.3 Handbook

A handbook is also a structured, comprehensive compilation of a field of knowledge but provides more in-depth information than the formats described above (lexicon, encyclopaedia and dictionary).

Instead of alphabetic order, a strict system is often used. The handbook sets itself apart from monographs due to the inclusion of several authors under the coordination of an editor and the character of a reference book. Therefore, if the introduction to a subject is to be more detailed than a Wikipedia search, using a handbook is recommended.

#### 2.3.1.3.4 Textbook

A textbook is a non-fiction book that offers subject matters and materials in an especially didactic way and is often used as teaching material in lessons.

Most university libraries will still have their own collection of textbooks offering several copies of these books (➔ chapter 5.4.6).

#### 2.3.1.4 Books as e-books

Many publishers offer current books additionally as e-books. If you prefer a digital version of books, it is worthwhile for newer books to find out if they also or instead are available in the holdings of the library system.

<p><b>1</b>  <b>Buch</b> ●●● ausleihbar</p>	<p><b>Vom Referat bis zur Examensarbeit : naturwissenschaftliche Texte perfekt verfassen und gestalten</b> Kremer, Bruno P. 4., überarb. und erw. Aufl. Berlin [u.a.] : Springer Spektrum, 2014</p>	<p> Merkliste</p>	
<p><b>2</b>  <b>E-Book</b> Zum Volltext</p>	<p><b>Vom Referat bis zur Examensarbeit [Elektronische Ressource] : Naturwissenschaftliche Texte perfekt verfassen und gestalten</b> Kremer, Bruno P 4., überarb. u. erw. Aufl. 2014 Berlin, Heidelberg : Imprint: Springer Spektrum, 2014</p>	<p> Merkliste</p>	

Figure 2: Book and e-book in the results list

Most of the time, e-books are currently (in 2015) digital reproductions of printed books in PDF format, which can also be searched, and labels can be added. Saving, printing and copying is generally also possible. You may have to log into a certain publisher portal to view the book but the licence agreements are very different. A great advantage of e-books is that they are generally available immediately.

However, e-books have a much larger potential than their printed predecessors: For example, multimedia elements such as videos, simulations or 3D models can be added to books. However, the development of this completely new category of books can only be speculated about (see Lemke 2014).

#### 2.3.1.5 Are audiobooks books?

The media theorist Vilém Flusser once asked the question how we would actually know if the great writers would not have preferred to speak on tape or make films (Ströhl 2014, S. 17). Only because writing and the book developed before records, radio, audiobooks and internet "by accident", it is impossible to state that the code "writing" should be the only one that is right and scientific. Should

we not be allowed to claim that an audiobook recorded by the author himself with matchless intonation has more value compared to the printed version?

However, the limits of audiobooks should not be kept hidden. Audiobooks will rarely meet the requirements of scientific publication: Audiobooks containing e.g. a spoken reference list or abstract would be rather a rarity. In addition, printed or digital documents have the advantage that it is much easier to read selected passages, to search them or just skim through. You will have your difficulties doing that with an audiobook. But hybrid forms and uses are conceivable.

### 2.3.2 Journals

In comparison to books, scientific journals are the more current sources where a fast exchange of scientific knowledge can be made. They contain scientific specialist articles.

Journals...

- ... are published regularly (e.g. weekly, monthly, etc.), which is why they are also called periodicals,
- ... are published either as booklet and/or electronically,
- ... contain individual articles,
- ... on different topics,
- ... by different authors,
- ... about current and new (scientific) knowledge,
- ... provide a good possibility to determine the current state of knowledge/research in a specialist subject.

Scientific journals are now often used online and provided by the publishers themselves. The quality of a journal can often be determined with the so-called science citation index (SCI) that states how often a journal is cited.

Electronic journals available and how to access them is described below in ➞ chapter 4.3.3.

### 2.3.3 Articles

Articles in *Sammelbände* or journals are also called **dependent publications**.

#### 2.3.3.1 Characteristics of scientific articles

Scientific articles can be recognised especially by their format:

- They are published in a scientific journal or a *Sammelband*,
- They usually start with an abstract, i.e. a short summary,
- there may be an overview in form of a table of contents,
- all statements are evidenced and can be verified,
- the article is formulated in a neutral and factual language,
- a list of references is provided at the end.

If (some of) these characteristics are not present, you should be careful: Use in your own scientific work is only acceptable in exceptional cases.

### 2.3.3.2 Online First (OF)

Scientific articles are almost always (also) published in electronic format; pure print journals become rarer. Many journals are published only in electronic format. Articles are often also published before the actual *Sammelband* or printed journal is published after it was subjected to the usual editing and review steps. This considerably accelerates the publication process as well as the associated scientific communication. Using a so-called *digital object identifier* (DOI), the article can be cited and referenced effectively (Kremer 2014, p. 37).

"Online First" not only gives you the advantage to gain access to resources but you can also keep track of the latest state of research.

### 2.3.3.3 Theses

As part of the university course and beyond, a number of other written works are produced at universities. However, only dissertations and habilitation theses are in general publically accessible due to the publishing obligation. Of course, this has to do with the objective of these works: While the familiarity with scientific methods is to be demonstrated in works below this level (assignments, Bachelor or Master, Diplom or Magister theses), dissertations are to investigate new scientific problems, i.e. generation of new knowledge. While dissertation and habilitation theses sooner or later appear in large literature databases and search results, the unpublished theses are not or sometimes only internally recorded at the university. For example, JLU Gießen now has its own document server, the Gießener Elektronische Bibliothek (GEB, Gießen Electronic Library, ↻ chapter 5.3.4) making these publications searchable and visible worldwide.

Furthermore, theses often belong to grey literature (↻ chapter 2.1.2).

## 2.3.4 Other media – beyond paper

The variety of media is huge consisting of e.g.:

- Carrier/storage media
  - papyrus and parchment,
  - paper,
  - mechanic storage media (e.g. records, cuneiform writing),
  - film (e.g. microforms, slides, negatives),
  - magnetic storage media (e.g. hard disc, compact cassette, audio tape, MiniDV, VHS cassette),
  - optical storage media (e.g. CD, DVD or BlueRay),
  - flash memory (e.g. SD card),
  - internet/cloud (server, internet, WWW, Dropbox, One or Google Drive, ...),
- File formats
  - document formats (z. B., pdf, doc, epub, LaTeX, HTML, XML)
  - audio formats (z. B. mp3, wav, wma)
  - video formats (z. B. mp4, avi, mpeg, mov, wmv)
- Mentioned sensory modalities
  - seeing: e.g. text, images, video, e-book
  - Listening: e.g. audiobook, mp3, music

Of course, this list is not comprehensive. Even media theorists have not found a consensus for a uniform system and may never find one (Ströhl 2014).

Some of the media mentioned above have also been introduced in the library but some have not (yet), and some have not been invented yet. Others were only used briefly and have (almost) entirely disappeared or will do so soon. For example, you will find microfilms and microfiches near the information desk on the second floor of the library. You can still watch these films with special readers. These micro formats originate from a time when especially journals and newspapers were saved on film to save space in comparison to using paper.

Currently, you will find other media, especially CDs and DVDs, next to books on the shelves. Using the internet you can also comfortably access journals, e-books and other online media. The Gießener Elektronische Bibliothek (GEB), the Digitale Gießener Sammlungen (DIGISAM, Gießen Digital Collections), the publisher homepages and the digital reserved reading shelves are some examples.

The university library also holds proper treasures such as medieval manuscripts, rare prints, papyrus-es and other rarities, which can be accessed in the special reading room (➔ chapter 5.4.11).

The third tab "Other information sources" of our search portal JUSTfind, provides a good introduction of other sources in addition to books, journals and articles.

	Web address	QR code
JUSTfind - Other information sources	<a href="https://hds.HeBIS.de/ubgi/Infos/Detail">https://hds.HeBIS.de/ubgi/Infos/Detail</a>	

## 2.4 Internet search with Wikipedia, Google & others

Today, the internet is the dominating port for access to information of all kinds. Information considered scientific is predominately available online. Therefore, finding information about a subject is not difficult but using the right sources, evaluating the quality of the information and making a suitable selection is more of a challenge (see Wyrzens 2014, p. 98f.).

### 2.4.1 Search engines

When using popular search engines like Google, you must consider that they

- do not use any quality assessment methods or other assessment methods like those necessary for scientific purposes,
- mainly (must) serve commercial interests,
- are often incomplete due to licences or the crawler principle,
- fish at the surface (surface web vs. deep web),
- compile results lists based on statistical principles rather than a systematic utilisation of key words, etc.,
- use an unclear ranking instead of orientation based on relevance, which may be based on advertising,
- are associated with data collection (data protection issue).

### 2.4.2 Google vs. JUSTfind

Google: Yes sure, everybody uses it. Here, you get the most results - but this can quickly become a problem. Let us take a look at the German key word "Lerntechniken":

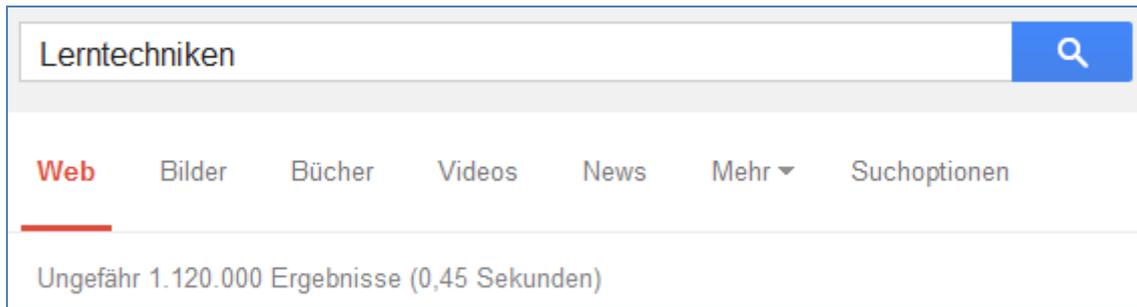


Figure 3: Number of results for the search term "learning techniques" on Google

About 1,120,000 results - the first page shows mainly links to websites with tips that were probably prepared by ambitious people but we do not find out anything about their quality. And if we apply the quality criteria discussed at the beginning of this book (➔ chapter 2.1), it does not look great.

In **JUSTfind** on the other hand, the same search term only gives 55 results in the catalogue and 501 results in the Tab "Articles & more". The first result is an e-book, which can be downloaded as full text version:



Figure 4: Number of results for the German search term "Lerntechniken" in JUSTfind

A look into this book demonstrates that the quality criteria for scientific publications are met. And the content? It contains at least as many practical tips as the Google results.

### 2.4.3 Wikipedia

Opinions differ widely when it comes to Wikipedia. Some consider it as second to none and even superior to classic encyclopaedias especially because of its community approach ("Wiki principle"). Others claim the opposite: Since all articles can be modified by everyone, the contents are arbitrary and unreliable (Berliner Kurier 2013) and often politically biased (presstext.redaktion 2012). However, if you try to modify an article, you will find that your modifications disappear very quickly. Many thousands of voluntary reviewers verify the modifications promptly and evaluate them. Espe-

cially if you have made modifications anonymously without logging in, you have little change of adding any nonsense.

As an example, a Wikipedia article is shown in the service Wikibu in the Figure below. Wikibu describes the quality of Wikipedia articles in German language with statistical methods.

The screenshot shows the Wikibu interface. At the top, there are navigation links: Home, Was ist Wikibu?, Wikibu im Unterricht, and Impressum. The main content area is titled 'Zum Artikel: Wissenschaft in der Wikipedia'. On the left, there is a search bar with 'Wissenschaft' entered and a 'go' button. Below the search bar, there are several statistics: 'Wikibu-Punkte' (5 / 10), 'Anzahl Besucher' (5 stars), 'Anzahl Autoren' (5 stars), 'Anzahl Verweise' (5 stars), and 'Quellennachweise' (5 stars). There is also a list of authors: Rtc, SieBot, Xqbot, JAnDbot, and TAXman. The main article content includes a warning about the title being ambiguous, a red box indicating the article needs improvement, and a red box indicating the article is not sufficiently cited. A tooltip is visible over the article text, stating: 'Der Inhalt dieses Artikels ist kaum durch Quellenangaben belegt. Es wurden ca. 0,6 Quellen pro A4-Seite verwendet. Besonders bei kontrovers diskutierten Themen sind Quellenangaben wichtig.' At the bottom, there is an 'Inhaltsverzeichnis' (Table of Contents) section.

Figure 5: Wikipedia article in Wikibu

The higher the number of authors, visitors, references and citations, the better the assessment of the article in Wikibu. On the right side of the Figure, you can also see that Wikipedia also includes comments on quality in the article. Users discuss possibilities for improvements of the respective article on associated discussion sites.

Eventually, the decisive question is if citing Wikipedia can be seen as scientific. If we use the criteria for "scientific-ness" (↪ chapter 2.1), we can see that many of these criteria are met but possibly not all of them. We will learn later (↪ chapter 4.1.3) that these shortcomings can be addressed with a sensible and careful use. We have just seen the quality assessment on Wikibu. But creating permanent links ("permalinks") to the cited version is another important step. Wikipedia also seems to improve and become more reliable over time and with an increasing number of entries (priesetext.redaktion 2012).

	Web address	QR code
Wikipedia	<a href="http://de.wikipedia.org/">http://de.wikipedia.org/</a>	



## 2.5 Catalogues, bibliographies and scientific databases

Library catalogues, bibliographies, scientific databases and scientific search engines are the most professional search tools for literature search at university. Quantitatively, you will get considerably less results compared to Google and others but the quality is generally significantly higher because the results were purposefully selected, verified and are more relevant.

### 2.5.1 Catalogues

*Catalogues* index **local holdings** and answer the question what is available in the library. Of course, these are mainly books, journals and other media. An e-book also belongs to this group if it is available locally, i.e. purchased and licensed by the library. The catalogue of the library systems at JLU is also called OPAC. OPAC stands for "Online Public Access Catalogue" and lists the holdings of the different JLU libraries. You can generally make an OPAC enquiry in the central search interface in JUST-find, which we will discuss in the following chapter.

The so-called "catalogue portal", on the other hand, offers a **nationwide** search whose range you can determine. For example, you can search only in the Gießen region, or in a certain so-called library network (e.g. HeBIS in Hessen) or even in all of Germany. A book that is not available in Gießen or already borrowed could, for example, be available in the city library or in the university libraries in Marburg or Frankfurt, where you can borrow it. Both locations can be easily reached with your semester ticket.

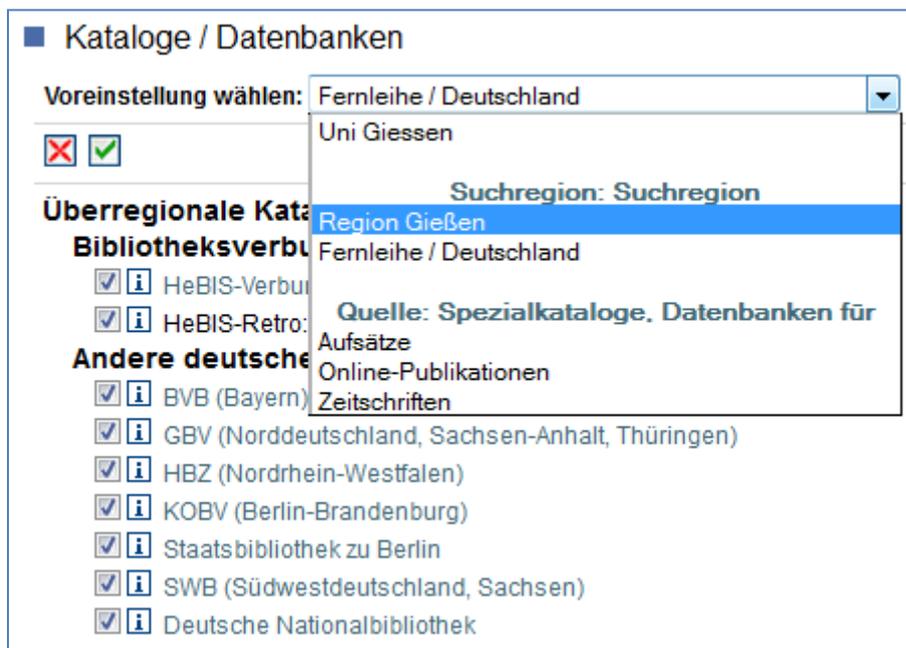
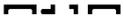


Figure 6: Selection of catalogues in the catalogue portal

If you want to do an international search, you could use the Karlsruher Virtueller Katalog (KVK) with approx. 500 million media or the largest catalogue in the world WorldCat with over two billion titles.

	Web address	QR code
JUSTfind	<a href="https://hds.HeBIS.de/ubgi/">https://hds.HeBIS.de/ubgi/</a>	
Catalogue portal	<a href="http://www.portal.HeBIS.de/servlet/Top/searchadvanced">http://www.portal.HeBIS.de/servlet/Top/searchadvanced</a>	
KVK	<a href="http://www.ubka.uni-karlsruhe.de/kvk.html">http://www.ubka.uni-karlsruhe.de/kvk.html</a>	
WorldCat	<a href="http://www.worldcat.org/">http://www.worldcat.org/</a>	

Catalogues mostly only contain **independent publications** such as books, newspapers, journals and other media. The actual *content* of journals and *Sammelbände* in form of articles is NOT included in the catalogue!

### 2.5.2 Bibliographies and scientific databases

A bibliography (from Greek "book writing") is an index of literature references and lists literature **independent of location** in contrast to catalogues. A bibliography lists literature based on the topic within a certain specialist subject, a person or even a certain time period or country, e.g. the *German National Bibliography*. Individual titles are references in the bibliography, which can be sorted based on different criteria. Bibliographies also contain **dependent publications**, e.g. articles in journals or *Sammelbände*.

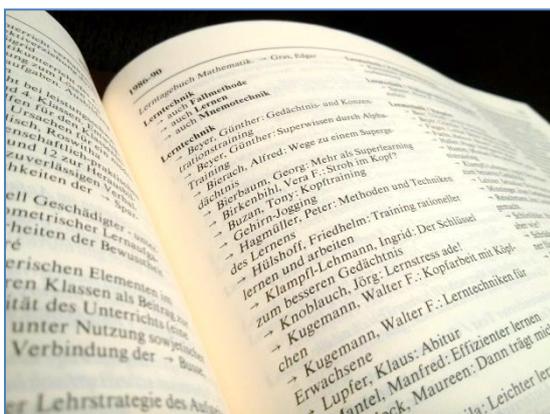


Figure 7: View of a volume in the German National Bibliography

Bibliographies are now generally available as databases so that you no longer have to page through the printed volumes and can search and sort much more comfortably. The possibilities are increased due to digitalisation so that you will get very good results with search terms, key words, truncations, logical operators, etc. (➔ chapter 4.2.2) in the right scientific databases or JUSTfind (➔ chapter 4.2).

In practice, the difference between catalogues and bibliographies is not always clear; there are several overlaps of entries in catalogues and bibliographies or scientific databases. It is important that you consider both. And that is exactly the approach of JUSTfind.

## 2.6 JUSTfind

The search engine JUSTfind is the modern answer of the library system at **Justus** Liebig University for intuitively searching and **find**ing scientific literature. In one joint interface, bibliographic databases are searched as well as the regional catalogue. Or expressed differently: Searching dependent and independent literature at once. That means: books, journals, articles, essays and other relevant media integrated in *one* search interface.

JUSTfind offers:

- A variety of scientific sources,
- access to information services free of charge that would otherwise incur a fee,
- indication of availability in the results list,
- results with quality instead of quantity,
- error tolerance,
- automatic search suggestions
- sorting based on relevance,
- simple filters,
- Citavi support,
- journal articles in full text version.

Since the results of the catalogue search and the search of bibliographic databases are so heterogeneous, the results lists are divided in two tabs in JUSTfind. Therefore, do not be satisfied with the first tab, because the second tab ("Articles & more") is the essence!



Figure 8: The tabs "Catalogue (OPAC)" and "Articles & more"

	Web address	QR code
JUSTfind	<a href="https://hds.HeBIS.de/ubgi/">https://hds.HeBIS.de/ubgi/</a>	

## 2.7 Consider the subject cultures!

Please keep in mind that there are different practices in the scientific method in general and literature search and citation style in particular in different subjects or with different teachers. For example, articles in specialist journals traditionally play a special role in the natural sciences. Often, special importance is placed on using English literature: English is the language of science per se and new, relevant results are published in journals in English language. Find out what the practices in your

subject(s) are and ask, if in doubt! Some subjects or teachers will also provide written recommendations/guidelines such as the Department for Further Education.

We collect the following information about your subject(s) on our internet pages under "For your subject": central and important subject-specific databases, books, e-books and journals as well as information about new acquisitions, reserved reading shelves and specialist information online.

	Web address	QR code
<b>Subject-specific information on the internet pages of the university library</b>	<a href="http://www.uni-giessen.de/ub/fachinfo">http://www.uni-giessen.de/ub/fachinfo</a>	
<b>Guidelines Dissertations</b>	<a href="https://www.uni-giessen.de/cms/fbz/fb03/institute/ifezw/prof/wb/studiumlehre/dokumente/1LeitfadenwissArbeiten_04_2015.pdf/at_download/file">https://www.uni-giessen.de/cms/fbz/fb03/institute/ifezw/prof/wb/studiumlehre/dokumente/1LeitfadenwissArbeiten_04_2015.pdf/at_download/file</a>	

## 2.8 How to deal with the diversity?

For most topics, there often are so many publications/information available already that it is impossible to include them all, even if you wanted to. Therefore, do not expect to achieve completeness. This does not only apply to the subject field but also for reading texts and especially books. At the end, you must make a selection that fits with your time restrictions:

- You must be able to find the most relevant and most important texts/materials,
- You should know and be able to roughly describe the current state of research/discussion.

Applied to your specific literature search, this means that you

1. should be able to search the holdings of independent literature (e.g. books, journals and other media) in catalogues (➔ chapter 2.5.1) and
2. find dependent literature (e.g. articles) using scientific databases.

Point 1 is mainly for an overview and relevance while point 2 is for currentness and scientific debate.

The literature search is an adaptive process: You start in one place with a question and continuously adapt the search to the circumstances because the results can hardly be predicted in advance. After reading the present book, you know the search possibilities, which you can then use in a varied way. However, goals and expectations often change with time: Especially when you are dealing with a topic in depth, your real need for information becomes clearer at a later time.

JUSTfind is the perfect tool for this: The results on the first tab "Catalogue (OPAC)" in connection with the second tab "Articles" will help you to maintain the view for the bigger picture despite the diversity.

## 2.9 The role of libraries and how they can be of use for you

How important can on-site libraries be in the digital age? Libraries offer a range of services you should also use. Many also simply use the library to study and work in an undisturbed environment, which you will hardly find anywhere else.

The university library in Gießen consists of the main building in Phil I ("UB") as well as 4 branch libraries and 7 subject-specific libraries, some of which have distributed their holdings in several smaller locations. They all form the "**library system**".

If you like, why not visit a library of our library system. If you have a smartphone or tablet, you can explore the university library for example with our audio guide that will explain and show you everything in your own time. Visiting the university library is also possible at any time in a virtual 360° tour. On our YouTube channel, you can find informative videos introducing the library system. There you can also find our tutorials but often they are a lot more interesting on the learning platform ILIAS because you can test what you have learned directly in the teaching modules. You can find an overview of our tours and training courses at location directly on our homepage.

We are introducing our services again briefly in the following sub-chapters. Acquiring literature in the library is explained in detail in ↻ chapter 5.4.

	Web address	QR code
<b>Homepage of the library system</b>	<a href="http://www.uni-giessen.de/ub/de">http://www.uni-giessen.de/ub/de</a>	
<b>360° tour of the university library</b>	<a href="http://ilias.uni-giessen.de/ilias/data/JLUG/lm_data/lm_136981/index.html">http://ilias.uni-giessen.de/ilias/data/JLUG/lm_data/lm_136981/index.html</a>	
<b>YouTube channel of the university library</b>	<a href="https://www.youtube.com/channel/UCv1eVzkAdpWbK_LQg52M1Qg">https://www.youtube.com/channel/UCv1eVzkAdpWbK_LQg52M1Qg</a>	
<b>Audio guide of the university library</b>	<a href="http://ilias.uni-giessen.de/ilias/data/JLUG/lm_data/lm_124800/index.html">http://ilias.uni-giessen.de/ilias/data/JLUG/lm_data/lm_124800/index.html</a>	
<b>Learning modules and more in ILIAS</b>	<a href="https://ilias.uni-giessen.de/ub">https://ilias.uni-giessen.de/ub</a>	

### 2.9.1 Services

The classic areas of responsibility of a library are:

- Acquiring, i.e. purchasing, of new literature, especially books and journals but also other media,
- Making them accessible by creating catalogue entries including indexing to make them easy to find,
- Provision, e.g. open access including loans,
- Archiving and digitalisation,
- Supply of documents and interlibrary loans
- and last but not least consultation and training on information competence.

And there are also the many work opportunities, which we will discuss in the next chapter.

### 2.9.2 The university library as attractive work environment

Students and other visitors come to the university library for different reasons: Some use the offered services mentioned above, others see the university library as an ideal environment for studying and working.

All important information media and an excellent infrastructure are available: WiFi, network and mains sockets support the mobile devices brought along, search PCs allow searching for literature and downloading documents. Other programmes such as the Office package are installed on many PCs (e.g. in the IT reading room on the ground floor of the university library and in the IT rooms of the university data centre on the first floor of the university library).

There are several workstations in the libraries depending on size: group study rooms, tables in the stairway, individual stations at the end of shelves and reading rooms. The lack of distraction from flatmates, TV and fridge has been an advantage for many. Copying machines are available on every floor where you can copy, print and scan documents. For larger scanning projects, special book scanners are available. The content is saved on your USB drive.

In our cafeteria - the CuBar - you can purchase hot and cold pick-me-ups, sweets and small snacks. Further information can be found on our internet pages:

	Web address	QR code
<b>Equipment &amp; rooms in the library study area</b>	<a href="http://www.uni-giessen.de/ub/lernort-ausstattung">http://www.uni-giessen.de/ub/lernort-ausstattung</a>	

### 2.9.3 Contact, information & help

Please also use the consultation possibilities in the library; you can get general information and help at the different information desks but there are also specialist librarians for all specialist subjects. You can find all important contacts on our internet page:

	Web address	QR code
<b>University library contact</b>	<a href="http://www.uni-giessen.de/ub/rnavi/kontakt">http://www.uni-giessen.de/ub/rnavi/kontakt</a>	

### 2.9.4 Workshops, training and personal tours

You can find an overview of dates and topics of our workshops, training courses and guided tours on the following webpage. In some study courses, you can gain an ECTS credit point with our AfK module "Informationskompetenz und Citavi" (Information competence and Citavi).

	Web address	QR code
<b>Workshops, training and guided tours</b>	<a href="https://www.uni-giessen.de/ub/schulungen_fuehrungen/index_html">https://www.uni-giessen.de/ub/schulungen_fuehrungen/index_html</a>	



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## 3. Preparing the search

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Do you already have specifications e.g. in form of a literature list (➔ chapter 3.1) or do you have to find out for yourself which literature is available for a topic (➔ chapter 3.2)? How extensive is your planned assignment going to be and how much time do you have (➔ chapter 3.3)?

### 3.1 Literature list available

If you already have a literature list, it will probably be easy for you. The literature is often searched quickly with the bibliographic information (➔ chapter 3.1.1). However, you should make a selection in advance, if necessary (➔ chapter 3.1.2).

#### 3.1.1 Bibliographic information

A good literature list often consists of so-called bibliographic information. This includes formal information about a publication such as author, publisher, year of publishing, page number, etc. This information will be different depending on the publication format: A book is cited in a different way compared to e.g. an internet source, a journal article or an audiovisual medium.

Since you also have to prepare a reference list (➔ chapter 7.1), it would be useful to take a closer look at the format. There are several "dialects" here that are also dependent on the subject culture. If in doubt, find out about the specifications of your subjects in advance.

#### 3.1.2 Making a selection

Literature lists can be very short - maybe only one title was provided - but sometimes they can be very comprehensive. In any case, get an **overview** of the complete list before starting with the actual literature search.

After getting an overview, **decide** which titles you would like to use first. Decision criteria can be: your need for information (interest), existing requirements, your time constraints, availability.

#### 3.1.3 Making notes for acquisition

The literature list can be used in a great way to note down details to acquire the title. Only if you know these details, you can estimate which material you will really use. Unfortunately, a book that was just borrowed is not available to you; you can only reserve it.

### 3.2 Literature list not available - the topical search

You want or have to search for literature about a topic yourself? This is great, because in this way you can set your mind free and work on the topic following your own ideas.

Regardless if you search with Google, Wikipedia, a database provider or our search portal JUSTfind: Make sure first what you want to search for and which search terms are suitable. This is best done with a term list (➔ chapter 3.2.1). You can also base your search on the location system of the library; this is called a "systematic search" (➔ chapter 3.2.2). As an alternative or supplement, you can take a good article or book about the subject as starting point and look into its reference list. This is the start of a search using the snowball method (➔ chapter 3.2.3). Clarify the extent of your search depending on the time you have available and prepare a schedule (➔ chapter 3.3) so you do not get confused.

### 3.2.1 Term list (search terms, term groups)

First, determine in more detail what you are searching for. Take a look at your topic and its aspects and note down the associated terms in a first list. They should not be too general; only good precise search terms will lead you to the required information. The list can now be fine-tuned. Let us take a look at the following aspects:

#### 3.2.1.1 Title words

Title words are real parts of a title or another part of a book, article or document. Many titles, for example, do not say a lot about the actual content: The book "Bibliotheksflirt" (Library flirt) by Jonas Fansa, for example, deals with the motivation to visit a library. Using title words alone, it would hardly be possible to find this title. The title words therefore come from the words selected by the author.

#### 3.2.1.2 Key words

In technical language, key words are called descriptors. In contrast to title words, they describe the content in more detail and are selected from a list of predefined terms. A key word (in contrast to a title word) does not have to occur in the title or the text. This indexing of documents is often done in libraries and is used for the provision of contents. For example, the German keywords "Motivationspsychologie" (motivation psychology), "Benutzerverhalten" (user behaviour), "Bibliothek" (library), „Öffentlicher Raum“ (public space) und „Benutzer“ (user) are allocated to the "Bibliotheksflirt" example mentioned above:

Bibliotheksflirt	
<b>Titel:</b>	Bibliotheksflirt : Bibliothek als öffentlicher Raum / Jonas Fansa
<b>Verfasser:</b>	Fansa, Jonas
<b>Veröffentlicht:</b>	Bad Honnef : Bock + Herchen, 2008
<b>Umfang:</b>	195 S. ; 210 mm x 148 mm
<b>Format:</b>	Buch
<b>Sprache:</b>	Deutsch
<b>RVK-Notation:</b>	AN 66000 <a href="#">INFO</a> · AN 66900 <a href="#">INFO</a> · AN 76000 <a href="#">INFO</a> · AN 77500 <a href="#">INFO</a> · AN 79000 <a href="#">INFO</a>
<b>Schlagworte:</b>	<input type="checkbox"/> Benutzerverhalten <input type="checkbox"/> Bibliothekseinrichtung <input type="checkbox"/> Bibliothek <input type="checkbox"/> Öffentlicher Raum <input type="checkbox"/> Benutzer <input type="checkbox"/> Motivationspsychologie

Figure 9: Title and key words in the detail view of a result

#### 3.2.1.3 Synonyms and thesaurus

Synonyms are words with the same or similar meaning and should always be considered when preparing a word list. Text processing programmes such as Microsoft Word offer synonym functions when right-clicking on a word and selecting "Synonyms" from the context menu:

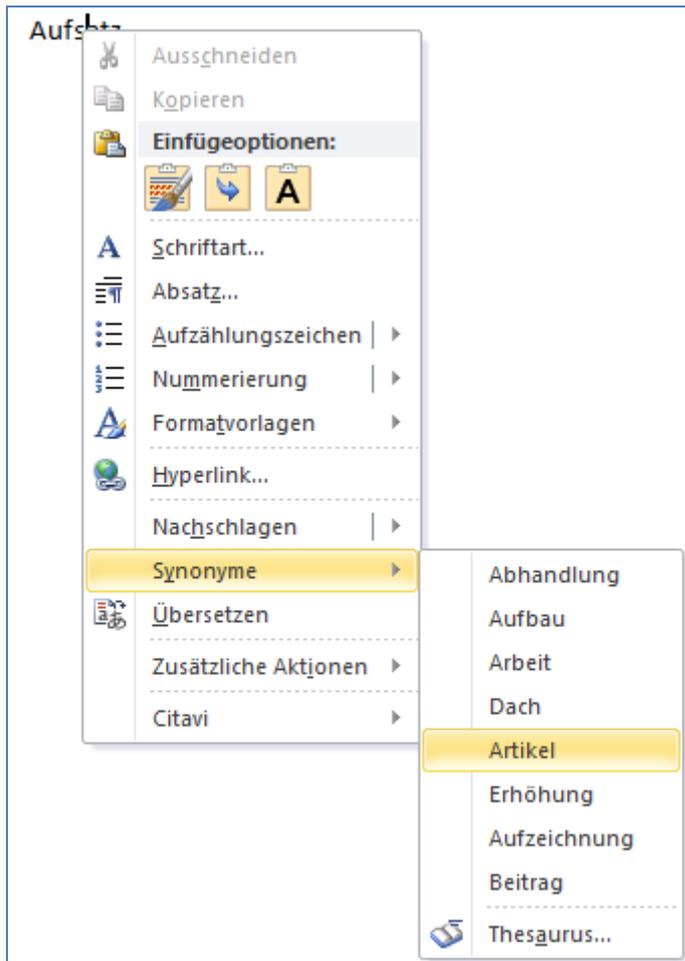


Figure 10: Synonyms in Word for the German word "Aufsatz" (article)

Alternatively or in addition, you can also use a thesaurus. A thesaurus sorts words according to topics and semantic fields and can help to find better or more suitable terms. It also shows synonyms, generic terms, special terms, related terms or antonyms. MS Word also provides the appropriate tool for this purpose (see again Figure 10) but you can also use other resources like e.g. OpenThesaurus:



The screenshot shows the OpenThesaurus.de website interface. At the top, the logo 'openthesaurus.de' is displayed with the tagline 'SYNONYME UND ASSOZIATIONEN'. A search bar contains the word 'Aufsatz' with a blue arrow button to its right. Below the search bar, there are three main sections of related terms:

- Aufsatz · Essay · Schulaufsatz**: Includes sub-terms 'Abhandlung · Artikel · Aufsatz · Bericht · Essay · Veröffentlichung · Paper (ugs.)' and a 'Text prüfen' button with 'mit LanguageTool'.
- Abfassung · Aufsatz · Denkschrift · Niederschrift**
- Teilwort-Treffer und ähnliche Wörter**: Lists 'Messtischaufsatz · Schulaufsatz' and 'Aussatz · Absatz · Ansatz · Aufputz · Umsatz'.

On the right side, there is a 'Wiktionary' section with 'Bedeutungen:' (meanings) and 'Synonyme:' (synonyms). The meanings listed are: '1. kurze schriftliche Abhandlung a. Schule: vom Schüler angefertigte schriftliche Arbeit b. wissenschaftliche Veröffentlichung zu einem Thema 2. Aufbau, aufgesetzter Teil 3. Ansatz des Halses bei Pferden'. The synonyms listed are 'Keine'. At the bottom right, the source is cited as 'Quelle: Wiktionary-Seite zu 'Aufsatz' [Autoren]' and the license is 'Lizenz: Creative Commons Attribution-ShareAlike'.

Figure 11: Search in OpenThesaurus

The terms defined in this way expand and specify your word list.

	Web address	QR code
OpenTesaurus	<a href="https://www.openthesaurus.de/">https://www.openthesaurus.de/</a>	

### 3.2.1.4 Spelling (umlauts, special characters, upper/lower case)

The spelling of search terms is often also important; words with umlauts like ä, ö, ü or the sharp s ("ß") may give different results when spelled as ae, oe, ue or ss. Specials characters, hyphens, accents and apostrophes can also make a difference. If in doubt, try several spellings and compare the results. In some cases, you can also use the truncation (↪ chapter 4.2.2.2) as placeholder for characters. Upper/lower cases usually do not play a role.

### 3.2.1.5 Language

You may have guessed it: Language can also be of great importance. The language of science is English and therefore, by far the majority of relevant scientific publication is in this language. It certainly will not be a disadvantage, if associated titles in English language are included in your reference list. Some English terms are also a definite part of jargon so that they are also incorporated in German titles: "Plewa, Alfred: Zur Unterscheidung von State- und Trait-Angst". Especially when searching for scientific articles, it can also be reasonable to specifically include German databases in the article search in JUSTfind (↪ chapter 4.2) because the tab "Articles & more" evaluates predominately databases in English.

### 3.2.1.6 Term groups and an example

You can now put the terms you found in groups

Imagine you want to discuss the topic "Soziale Medien in der Lehre" (*Social media in teaching*) in an assignment. Your term list could look like this, for example:

Term group 1	Term group 2	Term group 3	Term group 4
Studenten	Universität	Facebook	Tablet
Jugend	Hochschule	Twitter	Smartphone
Kinder	Seminar	WhatsApp	Computer
studieren	Vorlesung	Google	PC
Lernen	Lehre	Blog	Internet
	Studium	Wiki	Online
	Schule	Soziale Software	Web 2.0
	Klasse	Soziale Medien	Medien
	Unterricht		
	Weiterbildung		
	Ausbildung		
students	university	social software	media
youth	college	social media	
children	lecture		
study	school		
learning	class		
	lesson		
	training		

Table 1: Word list in term groups for topical search

An overview like this is a great starting point for the later search. Combine the blocks (=columns) with AND, the synonyms and alternatives (=rows) with OR. Other operators and brackets as well as truncations or wildcards and phrases can make the search more precise (➔ chapter 4.2.2).

### 3.2.2 Systematic search

Open access holdings are now arranged in the library shelves according to the so-called **Regensburger Verbundklassifikation (RVK)**. The RVK systematically sorts open access holdings following a defined classification of a field of knowledge so that you can find specific literature about a subject or area in the library. If you follow the link to the online version of the RVK, you will soon see how helpful this can be for a topical search.

Figure 12 below, for example, shows how you can find a book about research methods. The RVK starts with a general part across subjects: A Allgemeines (general), followed by B (religious science), CA-CK Philosophie (philosophy), etc. In part A, you can then find part AK "Wissenschaftskunde" (philosophy of science), a level below that is "Technik der wissenschaftlichen Arbeit" (research method techniques) and another level below is the complete notation AK 39540 "Einführung in das wissenschaftliche Arbeiten" (introduction to research methods).

Figure 12: Example of the RVK system with the corresponding book in the university library

When you get there, click on [AK 39540](#) and you can select the associated title in a list of catalogues, e.g. with the button "Search in BVB" (Figure 13):

Figure 13: Selecting the RVK notation in the catalogue

You can further limit the results list that appears if necessary so that you should be left at the end with a useable list of interesting titles. At the end, make sure that the title is really available at your location, for example with JUSTfind, and note down the corresponding complete shelfmark<sup>1</sup>. Maybe you get lucky and find an online source as can also be seen in Figure 14.

<sup>1</sup> A shelfmark is the location information consisting of letters and numbers usually placed on the spine of the book. The shelfmarks are listed in the detail views of printed books in JUSTfind.



Figure 14: Results list in the catalogue via RVK

You can also enter the found notation (e.g. "AK 39540") directly in the search field in JUSTfind so that you can search specifically in the holdings of the JLU university library. You can see the correct syntax ("rvk\_full:") in the input field in the Figure:



Figure 15: Using the RVK notation in JUSTfind

However, you must be a little careful: Some books can be allocated to several areas. Therefore, they might be situated in other location and therefore have a different notation. You will not achieve completeness with this method, but it provides a good introduction and overview (Franke 2014, p. 32f.).

	Web address	QR code
<b>Explanation EVK (JLU Gießen)</b>	<a href="http://www.uni-giessen.de/ub/rnavi/a-z/az-r/ag2-RVK">http://www.uni-giessen.de/ub/rnavi/a-z/az-r/ag2-RVK</a>	
<b>RVK system (Regensburg)</b>	<a href="http://rvk.uni-regensburg.de/index.php?option=com_rvko&amp;view=show&amp;Itemid=53">http://rvk.uni-regensburg.de/index.php?option=com_rvko&amp;view=show&amp;Itemid=53</a>	

### 3.2.3 Snowball method: starting with the reference list of a relevant article/book

A good starting point for the literature search is a book or an article, which is relevant for your topic. Other articles and books on the topic are cited here so that you will probably find another relevant reference when looking at the reference list. These references in turn reference other sources so that you can quickly find many, really relevant references with the search using the snowball method. Certain authors and titles are cited over and over again so that you can also find the fundamental works and leading researchers in your subject area in this way.

Disadvantage of this method: Your search is backwards; cited references are always older references. However, the snowball method can also work the other way around by taking a look at who cited a book or article at a *later* time. How to find associated, more recent literature for your subject is explained e.g. in ↻ chapter 4.3.2.

If you get a book from the library, taking a look at the adjacent books at the location in the open access holdings will also be useful. Since the holdings are arranged systematically (↻ chapter 3.2.2), you stand a good chance that you might also find interesting titles with this strategy and you can take these books with you as well.

## 3.3 Clarifying the extent, making a schedule

The extent of the literature search, of course, is largely dependent on the type of work and the level pursued. If you only have to write an essay or give a seminar presentation, the requirements will be different than for scientific assignments, theses or doctoral dissertations. You will often be given specifications about what to consider.

You should then bring the specified requirements in line with your own requirements, ambitions and interest as well as your time schedule. This way, you can determine your realistic need for information.

It can be helpful to ask yourself e.g. the following questions:

- Are a few relevant, corresponding references sufficient or are you aiming for completeness with your search?
- Can the search be limited to a certain period of time?
- How do you assess the ratio of books to journal articles?
- Do you also want to use other sources and media (e.g. an internet source only or videos)?

You should also keep an eye on the time you have from the beginning:

- When is your submission date?
- When does the literature search have to be complete so that you still have enough time for processing (reading, evaluating, using)?
- How can the literature be accessed?
  - Do you have direct access via internet (e.g. to e-books and articles)?
  - What is available in the library and can be borrowed?
  - Do you have to wait for interlibrary loans?
  - Can you use document delivery services?

Tip: Enter the search word "time management" in JUSTfind and download an e-book about this subject. Learning about time management will not only help you to save a lot of time in the long run but

will also help you to focus on the really important aspects. The short book "30 Minuten Zeitmanagement" (30 minutes time management) is a good start:

	Web address	QR code
E-book "30 Minuten Zeitmanagement"	<a href="https://hds.HeBIS.de/ubgi/Record/HEB336805039">https://hds.HeBIS.de/ubgi/Record/HEB336805039</a>	

## 4. Doing the search

For electronic resources, the actual search described in this chapter is more and more combined with acquiring the resource (➔ chapter 5) so that separating these two in two different chapters is sometimes not always sensible. On the other hand, the search competence is a clearly definable, challenging part that differs from the rather technical description of acquiring literature. A literature search often starts in the same portal that later provides the link to the online resource and the documents so that it could be viewed *immediately* and evaluated for its relevance (➔ chapter 6). However, this possible workflow does not always work: Especially during the classic search for books, suitable titles are determined in a first step before going to the library later to borrow them.

In general, you will do a search online or at least start it. However, there are a few exceptions, for example reference books: You can use e.g. a lexicon or a handbook as starting point for your search (➔ chapter 2.3.1.3) and then continue with the snowball method (➔ chapter 3.2.3).

Let us first take a look at the different starting points of an online literature search in the following Figure:

The screenshot shows the JUSTfind search portal interface, divided into three main sections:

- Laien-Suche (Layperson Search):** Includes logos for Google, Wikipedia (Die freie Enzyklopädie), and amazon.com.
- Profi-Suche (Professional Search):** Features the JUSTfind logo and three sub-sections:
  - Katalog (OPAC):** Bibliotheksbestand (Library holdings) including Bücher (Books), E-Books, CDs & DVDs, Zeitungen (Newspapers), Zeitschriften (Journals), Sammelwerke (Collected works), Mikrofilme (Microfilms), and Weitere Medien (Other media).
  - Artikel & mehr (Articles & more):** EBSCO-Index including Artikel-nachweise (Article references) and Volltexte (Full texts).
  - Weitere Infoquellen (Further information sources):** Links zu... (Links to...) including:
    - Datenbank-Infosystem (DBIS) Bibliothekssystem der Justus-Liebig-Universität Gießen
    - Giessener Elektronische Bibliothek
    - Semesterapparate online
    - EZB Elektronische Zeitschriftenbibliothek
    - Zeitschriftendatenbank (ZDB)
    - DIGISAM Digitale Giessener Sammlungen
    - Kataloge / Verzeichnisse der Universitätsbibliothek
    - subito Dokumente aus Bibliotheken e.V.
    - HeB/S Verbundkatalog
- Externe Angebote (External Offers):** Includes Web of Science and FIS FACHINFORMATIONSSYSTEM BILDUNG.

Figure 16: Starting points of an online literature search

We distinguish between the *layperson search*, which most readers have generally used in the past: searching in public portals such as Wikipedia, Google, Amazon and others. The second strategy is described using *JUSTfind*; it refers to catalogue searches, searches for journal articles & more as well as other sources. It may be the case that you already know and appreciate other, external scientific search portals/databases, which you prefer or use in addition.

## 4.1 Google, Wikipedia, Amazon and others: the usual start

In the past, you probably used search engines like Google or Wikipedia to find other internet sources most of the time.

We have already discussed why you should go beyond Google, Amazon, Wikipedia and others for your search in ↻ chapter 2.4. It is generally best to start a scientific search with JUSTfind. We now want to describe when you could or even should deviate from this basic rule.

### 4.1.1 Google

A sensible use of Google relates predominately to a quick, first search for facts, checking spellings or finding institutions (Franke 2014, S. 23). The Google search can be beneficial because of its closeness to natural language and the appropriate information that is provided directly.



Figure 17: Google result for a plain language question

When searching for literature, you will also get good results, which, of course, often refer to commercial offers:

The screenshot shows a Google search for "Literatur Lerntechniken". The search bar contains the text "Literatur Lerntechniken" and a magnifying glass icon. Below the search bar, there are navigation tabs for "Web", "Bilder", "Shopping", "News", "Videos", "Mehr", and "Suchoptionen". The "Web" tab is selected. Below the tabs, it says "Ungefähr 63.800 Ergebnisse (0,47 Sekunden)".

The main content area displays "Google Shopping-Ergebnisse für Literatur Le...". There are five product listings:

Product Title	Price	Shipping	Retailer
Lerntechniken üben - Compact	5,99 €	Versand gratis	buecher.de
Lerntechniken	3,99 €	+ 3,00 € Versand	Thalia.de
Das große Buch der ...	9,99 €	Versand gratis	buecher.de
Lerntechniken und ihre ...	12,99 €	+ 3,00 € Versand	Thalia.de
Grundwissen: Lerntechniken	10,50 €	Versand gratis	buecher.de

Below the shopping results, there is a link for "Das große Buch der Lerntechniken: Konzentration steigern ..." with the URL [www.amazon.de/große-Buch-Lerntechniken.../dp/3817473087](http://www.amazon.de/große-Buch-Lerntechniken.../dp/3817473087). Below the link, it says "Compact Redaktion - Das große Buch der Lerntechniken: Konzentration steigern. ... Um diese wirklich zu beherrschen, ist allerdings weiterführende Literatur ...".

Figure 18: Literature suggestion in Google

You will also find many of these sources in JUSTfind, which can often be borrowed free of charge from the library or are even available directly as e-book, as well.

The possibilities for a *more precise* search in Google are also interesting. For example in chapter 4.2.2.4, the Boolean operators AND, OR and other filter possibilities are discussed. Google also knows some of these filters as well as an advance search (chapter 4.2.2.2). Why don't you try them? The links are listed at the end of the chapter.

We recommend **Google Scholar**. This service based on the scientific search can also provide a real added value for your search. For example, you can determine a further use (citations) of articles and books. E-journals and other information purchased/licensed by the JLU university library can also be accessed directly from here, if you are identified as a member of the university.

You can also set up alerts for new articles on a subject in Google Scholar.

The screenshot shows a Google Scholar search interface. At the top, the Google logo is on the left, a search bar contains 'social media', and a search button is on the right. Below the search bar, the word 'Scholar' is displayed in red, followed by the text 'Ungefähr 3.570.000 Ergebnisse (0,05 Sek.)'. On the left side, there are navigation options: 'Artikel', 'Meine Bibliothek', 'Beliebige Zeit' (with sub-options for 'Seit 2015', 'Seit 2014', 'Seit 2011', and 'Zeitraum wählen...'), and sorting options 'Nach Relevanz sortieren' and 'Nach Datum sortieren'. The main content area shows search results. The first result is an article titled 'Users of the world, unite! The challenges and opportunities of Social Media' by AM Kaplan and M Haenlein, published in 'Business horizons, 2010 - Elsevier'. It includes an abstract, citation information (4716 citations), and links for similar articles, all versions, Web of Science, and citation/export options. The second result is a book titled 'Social Media Marketing: Strategien Für Facebook, Twitter & Co.' by T Weinberg, published in 2012. It includes a short description, citation information (240 citations), and similar links.

Figure 19: The search in Google Scholar

**Google books** can also be helpful to take a first look at books. However, they are almost always incomplete. The goal is to get you to purchase the book e.g. via Google. This preview is often completely sufficient for a quick assessment. The full text search in books and the possibility to provide excerpts to others is also interesting.

However, Google is not the only search engine; there are many others. The list includes, for example, Bing (Microsoft), Yahoo and so-called meta search engines that search in several search engines at the same time and compile the search results.

The search engines discussed here generally provide a lot more results than a service focused entirely on scientific literature just as e.g. JUSTfind. However, the increased number of results can be explained with the fact that the sources mostly do not meet the required scientific standards. Therefore, you should use these services as a second option for your literature search when the professional search tools do not provide results or too few.

**Tip:** If you have found interesting titles on Google, why not search them directly in JUSTfind (☞ chapter 4.2). The right book or found article may be available in full and without additional costs for you.

	Web address	QR code
Google Scholar	<a href="http://scholar.google.de/">http://scholar.google.de/</a>	
Google Books	<a href="http://books.google.de/">http://books.google.de/</a>	
Advanced search on Google	<a href="http://www.google.com/advanced_search">http://www.google.com/advanced_search</a>	

Characters, symbols and operators on Google <https://support.google.com/websearch/answer/2466433>



#### 4.1.2 Amazon.com

Amazon.com once started as electronic bookstore before developing into the dominating online retailer. Therefore, Amazon may be used as starting point for a search because the search has been improved and optimised over time.

Especially books can be found quickly with help of the central search field. The search terms are automatically expanded with suggestions already when entering them. The results can then be limited using filters ("facettes"); revisions of other customers/readers are directly shown next to the prices. These and other criteria in turn can be used for sorting so that it becomes clear quickly which books seem to be especially popular/good/new/inexpensive.

Amazon.com can also be a good place to find sold out books that are no longer available in normal bookstores. Amazon.com makes contact with smaller stores, second-hand bookstores and private persons and also deals with the payment. However, there are now several other platforms online specialising in sale and procurement of used books.

New or used: Once you have made a decision for one result and click on it, you get to the detail view, which reveals more: In addition to the bibliographic information, a look inside the book is often also possible so that you can comfortably get a first overview and determine its suitability.

The links to other books customers buy instead are also useful. This way you can discover similar and popular books and can also assess them immediately. In addition to the reviews, you can also access recensions that discuss the books in more detail. A little bit of critical distance is necessary here because in addition to real recensions there are often ordered recensions, which clearly have the purpose to advertise a product/book. Since the recensions themselves can be reviewed their evaluations becomes easier.

Let us take a look at a section of a recension on the controversially discussed and polarising book "Digitale Demenz" (Digital dementia) by Manfred Spitzer:

32 von 40 Kunden fanden die folgende Rezension hilfreich

★★★★☆ **Engagierte, einseitige Streitschrift für kritische Diskussionen**, 1. September 2012

Von **Prof Dr Olaf-Axel Burow "oaburow"** - [Alle meine Rezensionen ansehen](#)

VINE™-PRODUKTTESTER REAL NAME

**Rezension bezieht sich auf:** **Digitale Demenz: Wie wir uns und unsere Kinder um den Verstand bringen (Gebundene Ausgabe)**

Manfred Spitzer hat sich nicht nur als ausgezeichnete Vermittler von Einsichten der neueren Hirnforschung einen Namen gemacht, sondern ist auch auf dem Gebiet der Medienkritik zu einer führende Stimme in der Republik geworden. Jedenfalls füllt er mit seinen didaktisch geschickt aufbereiteten und zugespitzten Thesen mühelos Turnhallen mit verunsicherten Eltern und Lehrern und auch die Einschaltquoten seiner Wissenssendung können sich sehen lassen. Und mit seinem neuen Bestseller „Digitale Demenz“ stürmte er sogar auf Anhieb die Bestenliste des „Spiegel“. Wie macht er das?

Figure 20: Recension on Amazon.com on "Digitale Demenz"

The recension was written by Prof. Dr. Olaf Axel Burow, Professor for General Pedagogy at the University Kassel. The principle also called "crowdsourcing" where users themselves discuss works on Amazon.com can definitely provide a certain added value that can be used advantageously for your search (➔ chapter 6.1.1.2).

If you have found literature relevant to you in this way, it is worth finding out if the items are available from the library using JUSTfind.

### 4.1.3 Wikipedia

In ➔ chapter 2.4.3, we have already discussed Wikipedia a little and showed how you can assess the quality of an articles using Wikibu.

Wikipedia certainly is a good place to start if you want to get an overview about a subject and find further links. Wikipedia has overtaken many other encyclopaedias, handbooks, dictionaries and other sources. However, many do not consider Wikipedia a scientific source so that you must be careful especially when citing: Make sure that the examiners of your work do not clearly resent Wikipedia. Especially longer passages should not simply be copied into your work. Marking a passage as citation is definitely a must. You can escape the criticism that the articles change and therefore are not acceptable by using a so-called "permalink" instead of a normal link to the main article. This permanent link will show the page later in exactly the same version that you used at the time. You can find this function in the left navigation bar. You can also use the link "Cite this page":

The screenshot shows the 'Zitierhilfe' (Citation Help) page on the German Wikipedia. The page title is 'Zitierhilfe'. The main text explains that this special page is for helping with the correct citation of data, sentences, or shorter sections from Wikipedia articles within the framework of the right of citation. It instructs users to use the 'Seite zitieren' link in the 'Werkzeuge' navigation area. A warning states that taking over large sections or entire articles requires additional information and adherence to the Creative Commons Attribution-ShareAlike 3.0 license. Below the text, there is a form with 'Seite: Enzyklopädie' and a 'zitieren' button. The page also features a sidebar with navigation links and a search bar at the top right.

**Zitierhilfe**

Diese [Spezialseite](#) dient als Hilfe zum **korrekten Zitieren von Daten, einzelnen Sätzen oder kürzeren Abschnitten** aus Wikipedia-Artikeln im [Rahmen des Zitatrechts](#). Um die notwendigen Zitatangaben zu erhalten, folgst du üblicherweise – beim Betrachten eines enzyklopädischen Artikels – dem Link „Seite zitieren“ im Navigationsbereich „[Werkzeuge](#)“. Untenstehend kannst du auch direkt einen Seitentitel eingeben.

**Achtung:** Zur Übernahme umfangreicher Absätze oder kompletter Artikel sind andere und weitere Angaben nötig. Dabei müssen die [Nutzungsbestimmungen](#) der Creative Commons Shared Alike 3.0 (CC-by-SA-3.0)-Lizenz eingehalten werden.

Seite:

**Einfache Zitatangabe zum Kopieren**

Seite „Enzyklopädie“. In: Wikipedia, Die freie Enzyklopädie. Bearbeitungsstand: 24. November 2014, 18:44 UTC. URL: <http://de.wikipedia.org/w/index.php?title=Enzyklop%C3%A4die&oldid=136144841> (Abgerufen: 25. November 2014, 13:54 UTC)

**Bibliografische Angaben für „Enzyklopädie“**

- Seitentitel: Enzyklopädie
- Herausgeber: Wikipedia, Die freie Enzyklopädie.
- Autor(en): [Wikipedia-Autoren](#), siehe [Versionsgeschichte](#)
- Datum der letzten Bearbeitung: 24. November 2014, 18:44 UTC
- Versions-ID der Seite: 136144841
- Permanentlink: <http://de.wikipedia.org/w/index.php?title=Enzyklop%C3%A4die&oldid=136144841>
- Datum des Abrufs: 25. November 2014, 13:54 UTC

Figure 21: Integrated citation help in the German version of Wikipedia

One problem for citing is certainly the multi-author character. In case of the word "encyclopaedia" shown above, 138 authors had worked on the article already in November 2014. If the quality of an article is convincing and you cannot or do not want to do without it, at least cite it completely and appropriately, e.g. in this way:

WIKIPEDIA AUTHORS, SEE HISTORY (2014): PAGE "ENCYCLOPAEDIA". IN: WIKIPEDIA, THE FREE ENCYCLOPAEDIA. VERSION: 24. NOVEMBER 2014, 18:44 UTC. URL: [HTTP://DE.WIKIPEDIA.ORG/W/INDEX.PHP?TITLE=ENZYKLOP%C3%A4die&OLDID=136144841](http://de.wikipedia.org/w/index.php?title=Enzyklop%C3%A4die&oldid=136144841) (ACCESSED 25. NOVEMBER 2014, 14:15 UTC)

Hence, you can use Wikipedia articles without problem when starting to work on a new subject. Whether you should also cite them later is a different story. However, Wikipedia as the only reference in a scientific context is always insufficient; use search tools like JUSTfind (➔ chapter 4.2) to find appropriate literature.

## 4.2 The better search: JUSTfind!

➡ Chapter 2.6 already discussed in more detail what the literature search portal JUSTfind is, what it offers and where its advantages are. JUSTfind certainly stands out because the results meet the requirements of scientific methods, i.e. you can find scientific literature with JUSTfind.

To be able to use all functions of JUSTfind, it is useful to create a VPN connection (➡ chapter 5.3). With this, you identify yourself as a member of the university and will have full access to the contents and databases licensed by the library.

The process of a complete search with JUSTfind is demonstrated schematically in the following Figure before discussing the individual steps:

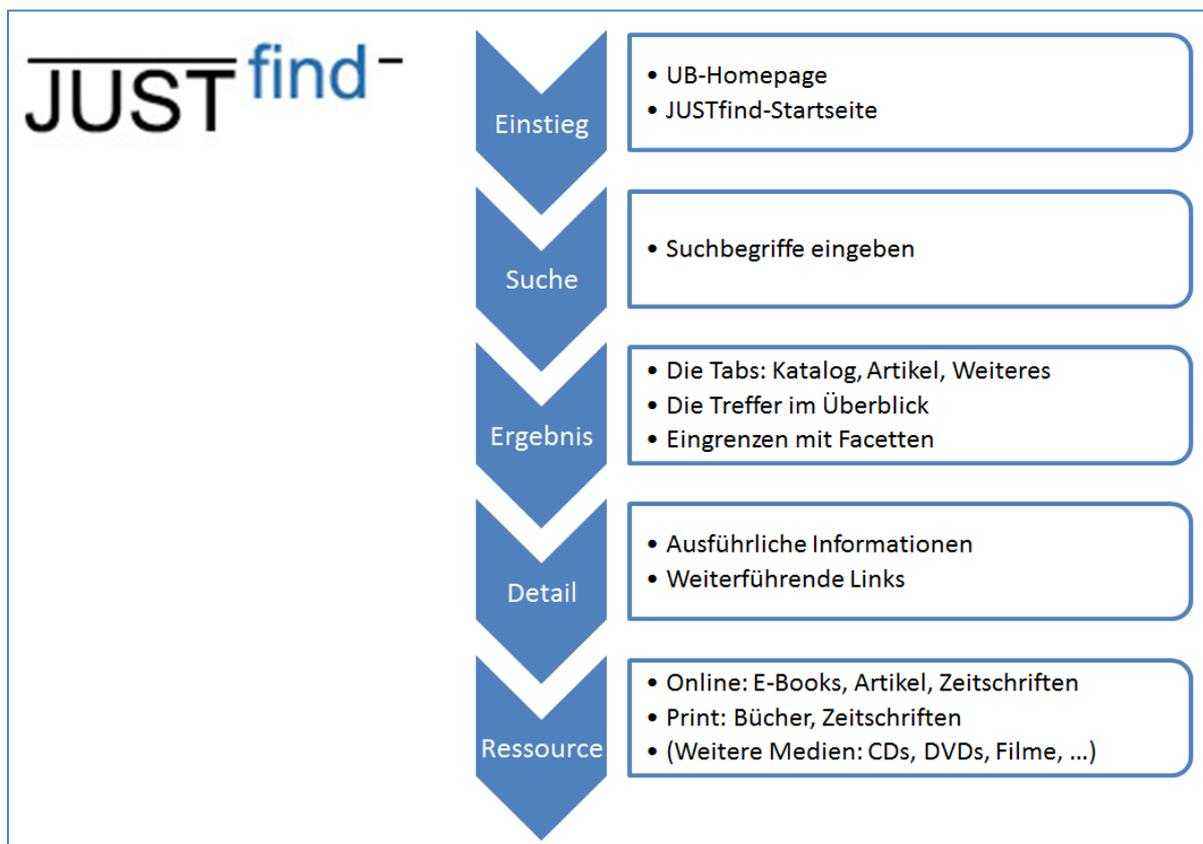


Figure 22: Search process in JUSTfind

In the first step, a JUSTfind access page (➡ chapter 4.2.1) is opened. There, you can enter one or more search terms in a second step (➡ chapter 4.2.2). After submitting them, the results page with the results list appears (➡ chapter 4.2.3). In a fourth step, you can select the detail page of a result, if required (➡ chapter 4.2.3.5). In a last step, one or more clicks take you to the full text version (➡ chapter 4.2.5) or to the printed copy (➡ chapter 4.2.6).

### 4.2.1 The access pages of JUSTfind

As a start for your search with JUSTfind, you can use the homepage of the university library with an integrated search box (see Figure 23 or <http://www.uni-giessen.de/ub>).

The screenshot shows the homepage of the Justus-Liebig-Universität Gießen library. At the top, there is a navigation bar with the university logo and the text 'UNIVERSITÄTSBIBLIOTHEK'. Below this, there are several menu items: 'Bibliothekssystem', 'A-Z', 'Standorte & Öffnungszeiten', 'Kontakt', and 'Ihr Ausleihkonto'. A search bar is located in the top right corner with the text 'Website durchsuchen'. The main content area is titled 'Bibliothekssystem der JLU Gießen' and features a 'JUSTfind' search box with a 'Suchen' button. A red arrow points to the search box. Below the search box, there are sections for 'Aktuelles' and 'Schulungen & Führungen'. The left sidebar contains 'Direkte Links' and 'Über uns'.

Figure 23: Homepage of the university library with JUSTfind search box

The search on the homepage of the university library will lead you directly to the results list of the catalogue (OPAC), which we will discuss in more detail in chapter 4.2.3.

Alternatively, you can start the search directly on the homepage of the search portal (see Figure 24 or <https://hds.HeBIS.de/ubgi/>). There, you can make additional selections: Decide whether you want to search the local holdings in the OPAC catalogue (this is the standard setting) or search directly for articles. You can also directly use the "Advanced Search" (chapter 4.2.2.2) here.

JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN UB

BETA JUSTfind

Bibliothekssystem Auskunft Feedback Vollzugriff ✓ Ihr Ausleihkonto Hilfe

Suchen Erweiterte Suche

Katalog (OPAC)  Artikel & mehr

"Katalog (OPAC)": Bestände des Bibliothekssystems der JLU Gießen: Bücher, Zeitschriften, Hochschulschriften, Online-Ausgaben, Noten und vieles mehr...

"Artikel & mehr": Online zugängliche Artikel, Bücher, Literaturhinweise aus bibliographischen Datenbanken u.a. Zum Teil auch Hinweise auf Artikel und Bücher, die sich nicht im Bestand des Bibliothekssystems der JLU Gießen befinden.

- Highlights JUSTfind
- Was ist neu?
- Schulungen & E-Tutorials

Figure 24: Homepage of the search portal JUSTfind

No matter how you start your search: Pressing the button "Search" will take you to the results list (→ chapter 4.2.3).

This so-called *Simple search* includes fields like author, title, place of publication, publisher, subject, tables of contents and abstracts. In addition, phonetically similar sounding words are found. **Upper/lower cases** usually do not play a role.

	Web address	QR code
JUSTfind	<a href="https://hds.HeBIS.de/ubgi/">https://hds.HeBIS.de/ubgi/</a>	
Homepage of the university library	<a href="http://www.uni-giessen.de/ub">http://www.uni-giessen.de/ub</a>	
Overview of the JUSTfind interface on YouTube	<a href="https://www.youtube.com/watch?v=nz1mrbHWeyS">https://www.youtube.com/watch?v=nz1mrbHWeyS</a>	

## 4.2.2 Advanced search terms

Before clicking the "Search" button, you should think about the search terms used and optimise them if necessary. Now is also the time to use your word list (➔ chapter 3.2.1) for a topical search.

First, the skilful selection of search terms is considered (➔ chapter 4.2.2.1). A specific search for bibliographic information like author, title, or ISBN, etc. is possible with the "Advanced Search" (➔ chapter 4.2.2.2). Truncations and wildcards allow more freedom when selecting terms by omitting characters (➔ chapter 4.2.2.3). The logical link between search terms can be created with Boolean operators (➔ chapter 4.2.2.4). The phrase search allows an exact search (➔ chapter 4.2.2.5).

### 4.2.2.1 Skilful selection of search terms

For a literature list (➔ chapter 3.1), two search terms are usually sufficient to get a result: Use the name of the principal author and a meaningful word from the title.

For a topical search, use as meaningful terms from your word list as possible. Up to four terms are linked automatically with AND in the tab "Catalogue (OPAC)" (➔ chapter 4.2.2.4), i.e. all terms appear in the results. Since a number of fields are included in the search, your terms may not be visible in the results list at first; they may appear later in the table of contents or in the abstract. If more than four terms are used, additional terms are seen as optional, i.e. they are linked with OR.

Use the automatic completion of search terms in JUSTfind to get more exact results.

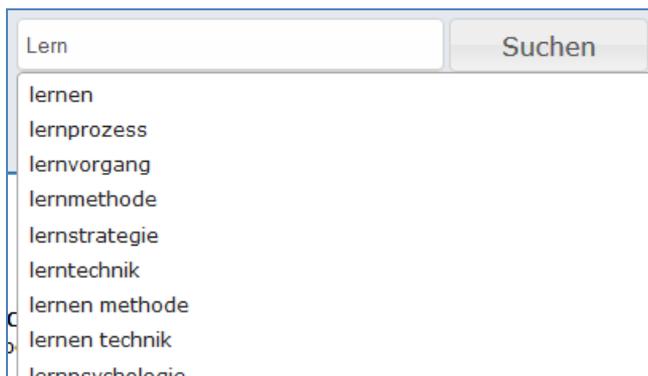


Figure 25: Automatic completion of search terms in JUSTfind

### 4.2.2.2 Advanced search

The *Advanced Search* can be accessed directly next to the "Search" button on the homepage of the search portal or next to the search field on the results page:



Figure 26: Accessing the Advanced Search

While the *simple search* searches all fields, you can now specify these fields before the search and get rid of imprecise results. The *Advanced Search* allows a specific access to certain database fields. For example, you can search for author, keyword, title word or an ISBN/ISSN.

Figure 27: Advanced Search on the tab "Catalogue"

#### 4.2.2.3 Truncations and wildcards

"Trunk" means "stem" and in our case refers to the word stem or root of a search term. With a "truncation" derived from this, you can use search terms in a more varied way, for example considering singular and plural at the same time. The special character "\*" allows omitting parts of your search term:

Example: para\* finds parasite, paralympics, parallel, etc.

A wildcard is represented by a question mark ("?"), which can act as a placeholder for exactly ONE character. This as well as other placeholders like "\$" or "#" are, however, not implemented in all databases to the same extent so that you may have to experiment or refer to the respective documentation if in doubt.

#### 4.2.2.4 Boolean operators

Boolean operators (named after George Boole) allow the combination of search terms or search fields in a certain way. The search can be restricted or expanded with them. For example, the operators AND, OR and NOT can be used (in block capitals!)

Search terms are always combined even if you do not ask for it: If you enter several terms in a search field, they first are combined with AND.

Example AND: "Black Red Gold" gives results with all three terms. This can also be entered as: "Black AND Red AND Gold".

This AND combination is done automatically for up to four search terms in JUSTfind in the tab "Catalogue (OPAC)"; from five search terms onwards, not all search terms must be included. However, the AND combination is continued consistently in the tab "Articles & more".

You can use the OR combination to allow for alternatives:

Example OR: "Black OR Red OR Gold" gives results that contain at least ONE or the three terms.

You can exclude terms with NOT:

Example OR: "Black AND Red NOT Gold" gives results that exclude the word "Gold" - e.g. a book on black-red foreign policy.

Some databases also allow proximity connectors that refer to the closeness of the search terms. For example, in the tab "Articles & more" you can use the operator "N" in combination with a number to determine the maximum distance between the words.

Example "Nx" in JUSTfind: "Germany N3 Greece" gives results that predominately deal with the relationship between Germany and Greece. A maximum of three other words are between the two search terms.

You can make your search even more precise by using brackets; the combination of truncations (☞ chapter 4.2.2.3) or phrases (☞ chapter 4.2.2.5) is also possible.

Possible more complex examples for a search are:

(climate change OR climate variation OR climate alteration) AND weather

or

(anterior cruciate ligament\* AND diagnosis AND therapy) NOT dog

The possible operators and their use mainly depend on the respective database so that reading the corresponding documentation might be worthwhile.

#### 4.2.2.5 Phase search

When using the phrase search, an exact order of words is looked for which is simply put in quotation marks:

Example for phrase search: "French revolution"

The phrase search is especially helpful, if, for example, you are looking for a certain title.

#### 4.2.3 The results page in detail

After submitting your search terms, you will arrive on the results page. It can also be used as a starting point for a new search.

The most important elements of the results page are now discussed in more detail: The tabs (❶), the results list (❷), filter options with facettes (❸), sorting (❹) and other elements (e.g. ❺).

The screenshot shows a search results page for the query 'lerntechniken'. At the top, there is a search bar with the query and a 'Suchen' button. Below the search bar, the search terms are displayed: 'Ihre Suchbegriffe : Einfache Suche: (Alle Felder: lerntechniken)'. A red box labeled ❺ highlights 'Ähnliche Suchbegriffe: lesetechniken, legetechniken'. Below this, there are three tabs: 'Katalog (OPAC) (165)', 'Artikel & mehr (36)' (labeled ❶), and 'Weitere Infoquellen'. The main content area is titled 'Bücher, E-Books, Zeitschriften und andere Medien'. On the left, there is a sidebar for 'Ergebnis einschränken' (labeled ❸) with filters for 'Zugriffsart' and 'Medientyp'. The main results list (labeled ❷) shows three items: 1. E-Book 'Lerntechniken [Elektronische Ressource]' by Reinhaus, David; 2. Buch 'Lerntechniken' edited by Rampillon, Ute; 3. Buch 'Ganzheitliches Lehren und Lernen 1. Lerntechniken und -methoden' by Klein, Zamyat M. On the right, there is a 'Sortieren' dropdown menu (labeled ❹) set to 'Relevanz'. A red box labeled ❺ also highlights the 'Ähnliche Suchbegriffe' section.

Figure 28: Important elements on the results page

#### 4.2.3.1 The tabs

They appear to be inconspicuous but the three **tabs** on the results list are important:



Figure 29: The tabs on the results page

Be clear about which tab is active (blue with white writing). In most cases, this will be the "Catalogue (OPAC)" tab, which shows the university library holdings. Journal articles are very important for scientific work but are usually not included in this tab: You can find them by selecting the second tab "Articles & more". However, the structure of both tabs is similar. The third tab "Other information sources" is an exception.

##### 4.2.3.1.1 "Catalogue (OPAC)" tab - the catalogue, the index of local holdings

This tab shows printed and electronic books, journals and other media in the holdings of the university library. They are usually available and can be loaned unless someone else has borrowed them.

lerntechniken  Erweiterte Suche

Ihre Suchbegriffe : **Einfache Suche: (Alle Felder: lerntechniken)**

Ähnliche Suchbegriffe: lesetechniken, legetechniken

**Katalog (OPAC) (165)** Artikel & mehr (36) Weitere Infoquellen Suchverlauf

Bücher, E-Books, Zeitschriften und andere Medien

Ergebnis einschränken Treffer 1 - 25 von 165, Sortieren Relevanz ▾

**Zugriffsart**

Gedruckt/Datenträger (155)

Online (10)

**Medientyp**

Buch (161)

Dissertation (11)

Buch (Retro) (4)

Festschrift (2)

Habilitationsschrift (2)

mehr ...

**Bibliothek**

UB Giessen (97)

Zweigbibl. Philosophikum II

Romanistik (25)

Fachbibliothek Anglistik (19)

1 **E-Book** **Lerntechniken [Elektronische Ressource]** + Merkliste  
 Reinhaus, David  
 1. Auflage  
 München : Haufe-Lexware GmbH & Co. KG, 2011

2 **Buch** **Lerntechniken** + Merkliste  
 Rampillon, Ute (Hrsg.)  
 ●● nicht ausleihbar  
 Velber : Friedrich [u.a.], 1991

3 **Buch** **Ganzheitliches Lehren und Lernen 1. Lerntechniken und -methoden** + Merkliste  
 Klein, Zamyat M.  
 ●●● ausleihbar  
 Unveränd. Nachaufl.  
 Heidelberg : Hiba, 1998

Figure 30: Results page with "Catalogue (OPAC)" tab

#### 4.2.3.1.2 "Articles & more" tab

In the "Articles & more" tab, you can find specialist articles, books and other literature information from bibliographic databases that are accessible online. Very often, the tab saves you the additional search in specific databases but only a selection is included here for clarity purposes. A complementing search directly in a specialist database (➔ chapter 4.3.1) can be useful in many cases. You can access the tab by selecting the corresponding option on the access page of the portal or simply by switching to the "Articles & more" tab from the "Catalogue (OPAC)" tab.

JUSTfind will routinely ALWAYS search in both tabs at the same time so that scientific articles can be accessed very easily. You still remember the importance of the part on scientific publications? If not, please refer back to ➔ chapter 2.3.2 f. The majority of articles listed in the "Articles & more" tab are in English. Most of the time, the amount of results considerably exceeds the amount on the first tab.

Katalog (OPAC) (56) **Artikel & mehr (314)** Weitere Infoquellen Suchverlauf

Volltexte und Aufsatznachweise aus Datenbanken aus dem EBSCO Discovery Service

Ergebnis einschränken Treffer 1 - 25 von 314, Sortieren Relevanz ▾

**Suchfilter**

Full Text

Peer Reviewed

1 **Lern- und Arbeitstechniken : allgemeine Lerntechniken, Lerntyp, Motivation, Zeitmanagement, Lerngruppen ; Lerntechniken in der rechtlichen Ausbildung, Lern- und** + Merkliste

Figure 31: "Articles & more" tab

#### 4.2.3.1.3 Other information sources

The "Other information sources" tab provides quick access to other locations for your literature search if you cannot find what you need on the first two tabs: Direct links to specialist databases

(DBIS) (➔ chapter 4.3.1), reserved reading shelves (➔ chapter 4.3.6), journals (➔ chapter 4.3.3 and 4.3.4), the university literature server GEB (➔ chapter 5.3.4), collections (➔ chapter 5.4.11), interlibrary loans (➔ chapter 5.5), document delivery services (➔ chapter 5.7) and other sources help you to find specific literature.



Figure 32: "Other information sources" tab in JUSTfind

### 4.2.3.2 The results list

The results list constitutes the core and main area of the results page. First, we will take a look at the elements and the appearance of the list (➔ chapter 4.2.3.2.1) before we evaluate the results (➔ chapter 4.2.3.2.2), and you can find out about the possibilities of how to deal with too few (➔ chapter 4.2.3.2.3), too many or imprecise results (➔ chapter 4.2.3.2.4).

#### 4.2.3.2.1 Elements and appearance

Up to 25 results are listed in the results list; of course, additional results can be displayed as well.



Figure 33: The results list on the "Catalogue (OPAC)" tab

On the "Catalogue (OPAC)" tab, you can recognise the media type by the symbol and description and you can see the availability directly below it: Result 1 in Figure 33 refers directly to the full text of an e-book, result 2 to a book in the present holdings and result 3 to a book in the open access area of

the university library that can be borrowed and is also available. The traffic light symbol is used to indicate the availability of physical media (books, DVDs, etc.).

This information is not shown in the results list of the "Articles & more" tab. There, you can either access the full text versions directly or you have to search for the corresponding journal containing the article instead: Journals in the university library holdings are listed in the "Catalogue (OPAC)" tab.

Selecting a title or the authors will take you to the detail page of a result (➔ chapter 4.2.3.5).

#### 4.2.3.2.2 Volume and quality

The following statements about the analysis of your results list are made referring to JUSTfind but can generally also be applied to other search portals, the Google search, search in specialist databases, etc. The selection of the search tool will influence the volume and quality of the results considerably: For example, the number of results and their quality will differ significantly if you enter the same search term in Google and JUSTfind.

Generally, you are moving between the ends of a spectrum between *precision or relevance* and *number of results*. Your results should also always correspond to the aim of the search and the reason: The standards for a dissertation (doctoral thesis) will be different to the standards for a written assignment or a seminar presentation. In case of a dissertation, *completeness* must be sought, i.e. for a good thesis it is necessary to exactly know the field of research and the respective literature. After months and years of work, one should not find that there already is sufficient knowledge about this subject. On the other hand, it is sufficient for a seminar presentation to have a few but precise references that are suitable as evidence and maybe provide a few citations.

In any case, make sure that the references you find meet the scientific requirements discussed in ➔ chapter 2.1. You will be on the safe side if you search with JUSTfind.

#### 4.2.3.2.3 Too few/no results

If your search returns too few results, you should check your word list or prepare one now at the latest (➔ chapter 3.2.1). The methods described in ➔ chapter 4.2.2 can also lead to more results: Truncations, synonyms or related words, search with English words and using suitable keywords can provide more results. You can find the keywords of your results in their detail view (see Figure 37). Pay also attention to the automatic search suggestions JUSTfind offers while you type. This list may contain good alternatives (➔ chapter 4.2.2.1).

Little errors can also happen sometimes: Typing errors (JUSTfind may provide suggestions for corrections), problems with special characters (omit, if necessary) or the article search in the catalogue/OPAC (you would have to search for the journal here) are the classic sources of error.

It may also be useful to look at a few but good results, i.e. the reference list of a found article or book (➔ see snowball method, chapter 3.2.3). You can also search forward and find out in which later articles a book or an article was cited (➔ chapter 4.3.2).

However, you may also have to use other sources of information like bibliographies or specialist databases (➔ chapter 2.5.2). In a first step, it may be useful to select the second tab "Articles & more" in JUSTfind.

You are also always welcome to use the consultation options in the library; in addition to general information, there are also specialist librarians.

#### 4.2.3.2.4 Too many/imprecise/unsuitable results

If your search provides many results that only touch on your subject but do not discuss it in detail, you must narrow the number of results down sensibly. You should do this particularly by using your word list or preparing such a list (➔ chapter 3.2.1) and by using the methods described in ➔ chapter 4.2.2, for example combining additional terms with AND.

It may not be clear why a result actually appears in the results list because tables of content and abstracts are also searched based on the search terms entered. They may contain similar sounding words or words with the same root as well as deviating spellings. This comprehensive list can provide additional relevant results. Facettes (➔ chapter 4.2.3.3) will help you to narrow them down. The "Advanced Search" (➔ chapter 4.2.2.2) also allows a specific search with certain search fields.

The quality (➔ chapter 6.1) of your results is also important: Always consider scientific publications that were published in designated and established specialist journals or by known publishers. Use the facets in JUSTfind to limit the results further or take a look at the impact factor of a journal (➔ chapter 6.1.2).

However, it may also be helpful to meet with a librarian or to further limit a subject after consultation with your teacher.

#### 4.2.3.3 Refining the search with facets

You can limit the results in the results list in JUSTfind according to certain criteria using facets. Depending on the tab on which you are ("Catalogue (OPAC)" or "Articles & more"), these will differ slightly (see Figure 34): In the facets on the "Catalogue (OPAC)" tab, you can begin with selecting between physical and online materials, determine the desired type of media (e.g. "book" or "journal"), select a certain library, determine a time period, etc. Additional options can be found under "more...". You will immediately notice that the facets of the "Articles & more" tab focus on literature in English. Here, you can, for example, select specific articles that have gone through the peer review process or articles that are also available as full text version. The option to filter based on keywords also stands out.

Why not try the facette function? However, keep in mind that selecting a facette may also remove many other relevant results, if, for example, a selected criterion is not present in the database entry. For example, an article may have been through the peer review process but this is not indicated in the bibliographic information.

You can also select and combine several facets at the same time.

**Katalog (OPAC) Ergebnis einschränken**

- Zugriffsart**
  - Gedruckt/Datenträger (155)
  - Online (10)
- Medientyp**
  - Buch (161)
  - Dissertation (11)
  - Buch (Retro) (4)
  - Festschrift (2)
  - Habilitationsschrift (2)
  - mehr ...
- Bibliothek**
  - UB Gießen (97)
  - Zweigbibl. Philosophikum II
  - Romanistik (25)
  - Fachbibliothek Anglistik (19)
  - Zweigbibl. Rech u. Wirtschaft
  - mehr ...
- Fachgebiet**
- Verfasser**
- Sprache**
- Erscheinungsjahr**

Von: 1952 Bis: 2015

Setzen

**Artikel & mehr Ergebnis einschränken**

- Suchfilter**
  - Full Text
  - Peer Reviewed
  - Update
- Medientyp**
  - Books (96)
  - Academic Journals (37)
  - Electronic Resources (21)
  - Magazines (14)
  - Reports (9)
  - mehr ...
- Schlagwort**
  - learning strategies (26)
  - lernstrategien (25)
  - academic learning &
  - lernen und leistung (21)
  - study habits (17)
  - mehr ...
- Verlag**
- Erschienen in**
- Sprache**
- Land/Region**
- Treffer aus**
- Erscheinungsjahr**

Von: Bis:

Figure 34: Comparison of the JUSTfind facettes

#### 4.2.3.4 Other elements

There are other areas in the results list that may be interesting for you. For example, you can sort the results list according to different criteria (see Figure 35).



Figure 35: Sorting the results list

If there are typing errors or similar search terms, JUSTfind offers alternative suggestions on the "Catalogue (OPAC)" tab. However, the results list is often displayed correctly despite typing errors.



Figure 36: Error tolerance and similar search terms

#### 4.2.3.5 Behind the scenes of the search

On the "Catalogue (OPAC)" tab, up to four terms are automatically combined with AND, if 5-7 terms are entered one may not be included and additional terms can be omitted if eight or more terms were entered. On the other hand, a combination with AND is continued consistently on the "Articles & more" tab.

More tips:

- Special characters or umlauts: If the search does not give results using them, try without,
- Language: The "Articles & more" tab mainly searches databases in English; therefore, you may have to do an additional search in specialist databases for German articles (➔ chapter 4.3.1),
- If a searched article is not found, search for the journal title or the book title in the "Catalogue (OPAC)" tab.

#### 4.2.4 The detail view of a result

Clicking on the title or the authors in the results list will take you to the detail view (see Figure 37), which has a number of useful elements. Three areas can generally be seen: The main area with bibliographic and content-related information (❶), information about the location (❷) and further activities (❸). These areas are explained in more detail below.

**Katalog (OPAC) (264)** Artikel & mehr (0) Weitere Infoquellen Suchverlauf

« Zurück zum Suchergebnis  
« Vorheriger 11 von 264 Nächster »

**1** **Generation "Social Media"**

**Titel:** Generation "Social Media" : wie digitale Kommunikation Leben, Beziehungen und Lernen Jugendlicher verändert / Philippe Wampfler

**Verfasser:** Wampfler, Philippe

**Veröffentlicht:** Göttingen [u.a.] : Vandenhoeck & Ruprecht, 2014

**Umfang:** 160 S. : Ill., graph. Darst.

**Format:** **Buch**

**Sprache:** Deutsch

**RVK-Notation:** MS 7965 [INFO](#) • MS 2350 [INFO](#) **2**

**Schlagnote:**  Medienkonsum  [Wikipedia](#) **4** Kommunikationsverhalten  Onlinecommunity  Neue Medien  Jugend  Soziale Software

**ISBN:** 9783525701683 **5**  
3525701683 **5**

**Hinweise zum Inhalt:** [Inhaltsverzeichnis](#) **6**  
[Inhaltstext](#)

**7**

**9**  Als Email versenden  
 Merkliste  
 Exportieren

Weitere Ausgaben

Keine weiteren Ausgaben gefunden

**8** **ZwBibl. im Phil. II F; Erdgeschoss**

**Signatur:** 009 MS 7965 W243 [Standort in der Bibliothek anzeigen](#)

**Status:** **ausgeliehen** **Vormerken** **Leihfristende:** 07.04.2015

Figure 37: The detail view of a result

In addition to the bibliographic information about title, authors, date of publication and other information, you can also find a reference to the RVK notation (2) in the main area. Remember (3 chapter 3.2.2): The RVK systematically sorts based on subjects or subject areas that are displayed when hovering the mouse over the area. Clicking on the RVK notation starts a corresponding catalogue search - the new search term may then be for example: `rvk_full:"MS 7965"`. In this way, you can quickly see which literature about this subject is available at your location. The keyword list (3) is similarly helpful; by clicking, you can find results, which also use the same keyword. By checking several keywords, you can combine them and start a new search based on them using the magnifying glass symbol. A symbol (4) directly links terms or authors that have an entry on Wikipedia to the site. And if you want to use the literature management programme (Citavi (3 chapter 7.3), you can transfer the bibliographic information directly (5). Details on the content like a table of contents, an abstract and others are available as well (6). A preview into the book is often also possible, like on Google for example (7).

The area with the location information (8) can also contain additional information about the book but mainly indicates the exact location of a book in the library (3 chapter 5.4.5).

In the top right (9), you can also see an area that allows sending all information as email, adding them to a watch list in your loan account as well as exporting. Other issues that may exist are also listed here.

#### 4.2.5 From the result to the full text version...

Full text versions of documents that are available in electronic format like e-books or articles can often be accessed directly from the results list or the detail view. This directly combines the literature search (➔ chapter 4) with acquisition (➔ chapter 5).

If possible, JUSTfind provides a direct link to the book/document, which can be viewed and downloaded from the JLU network or with a corresponding VPN connection.

##### 4.2.5.1 ... in the "Catalogue (OPAC)" tab

In the "Catalogue (OPAC)" tab, suitable books are marked as e-books and can be accessed via the link "Full text". If you want to limit your search to online media only from the start, you can do this by selecting the appropriate access type in the facette area on the left.



Figure 38: An e-book in the results list

The full text link usually contains a connection to the corresponding publisher homepage.



Figure 39: Available full text version

##### 4.2.5.2 ... in the "Articles & more" tab

In the last row of a result in the "Articles & more" tab, you can also find a direct link to the full text version if you are logged into the university network. In this case, you will see "Full text" with a link to the source in brackets or "access full text" or similar:

The screenshot shows a search interface with the following elements:

- Search bar: "Social media lernen"
- Buttons: "Suchen", "Erweiterte Suche"
- Search criteria: "Ihre Suchbegriffe : Einfache Suche: (Alle Felder: Social media lernen)", "Ihre Suchfilter : Limiter: Date Published: [2011 TO 2014]"
- Navigation: "Katalog (OPAC) (206)", "Artikel & mehr (135)", "Weitere Infoquellen"
- Section: "Volltexte und Aufsatznachweise aus Datenbanken aus dem EBSCO Discovery Service"
- Results summary: "Ergebnis einschränken", "Treffer 1 - 25 von 135", "Sortiere"
- Filter sidebar:
  - Suchfilter entfernen
  - Suchfilter:
    - Full Text
    - Peer Reviewed
    - Update
  - Medientyp:
    - Academic Journals (63)
    - Books (58)
    - Electronic Resources (22)
    - Magazines (12)
- Article 1:
  - 1 Gemeinsam lernen auf Facebook & Co.? Der Einfluss von sozialen und persönlichkeitsbezogenen Aspekten auf die Nutzung von sozialen Medien für den studienrelevanten Austausch.**
  - von Sträfling, Nicole ; Krämer, Nicole C.
  - Schlagworte: Volltext (nur im Netz der Universität Gießen)
  - Green arrow points to the end of this result.
- Article 2:
  - 2 Mit Social Media lernen : Potenziale & Erfolgskriterien**
  - von Konrad, Jonas ; Göldi, Susan ; Dörhöfer, Steffen
  - Wissensmanagement : das Magazin für Führungskräfte; Augsburg : Büro für Medien Lehnert; Vol. 16, No. 2 (2014), p. 18-20
  - Volltextsuche
  - Yellow arrow points to the "Volltextsuche" link.

Figure 40: Full text search for articles

The link indicated with the green arrow in Figure 40 points to a direct link at the end of the first result that generally takes you to the publisher.

The screenshot shows the Springer Link article page with the following details:

- Header: "Springer Link", "Sign up / Log in", "English", "AC"
- Search bar: "Search", "Q", "Settings"
- Navigation: "Home", "Contact Us"
- Actions: "Download PDF (537 KB)", "View Article"
- Article Information:
  - Gruppendynamik und Organisationsberatung
  - December 2013, Volume 44, Issue 4, pp 409-428
  - Date: 19 Sep 2013
  - Gemeinsam lernen auf Facebook & Co.?**
  - Nicole Sträfling M.Sc., Prof. Dr. Nicole C. Krämer
  - Download PDF (537 KB)
  - View Article
- Thumbnail: "GRUPPENDYNAMIK & ORGANISATIONSBERATUNG", "Look Inside", "Springer VS", "4/2013"
- Other actions

Figure 41: Linked article

However, there is an intermediate step for most documents - the "Full text search" (yellow arrow in Figure 40). A so-called link resolver (ReDI»Links) determines "if a desired title is available as electronic full text, as printed version at the location or in another library. If necessary, an interlibrary loan can be requested directly at the end of the search (Universitätsbibliothek Freiburg 2008).

For example, the screen could show something like this after clicking on "Full text search":

The screenshot shows the 'Links' interface of the University of Giessen library. At the top, there are logos for 'JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN' and 'UNIVERSITÄTS BIBLIOTHEK'. Below the logos, there are tabs for 'Dienste' and 'Einstellungen'. The main content area displays search results for an article. The metadata includes:
 

- Titel:** Gemeinsam lernen auf Facebook & Co.? Der Einfluss von sozialen und persönlichkeitsbezogenen Aspekten auf die Nutzung von sozialen Medien für den studienrelevanten Austausch
- Autor:** Sträßling, Nicole
- Quelle:** Gruppendynamik und Organisationsberatung, 44(4):409-428, 2013
- ISSN:** 1618-7849, 1862-2615 (elektronisch)
- DOI:** 10.1007/s11612-013-0224-0

 Below the metadata, there are three sections with blue double arrow buttons:
 

- Elektronischer Volltext:** A message states 'Der gesuchte Aufsatz ist über ein Online-Abonnement Ihrer Bibliothek freigeschaltet'. Below this is a link to the journal's homepage with a blue double arrow button.
- Gedruckte Ausgabe:** A message states 'Gedruckte Ausgabe vorhanden? Katalog (OPAC) - 1 Treffer' with a blue double arrow button.
- At the bottom, there are buttons for '+ Fernleihe' and '+ Kontakt'.

 Three red arrows point to the blue double arrow buttons: one to the DOI button, one to the electronic full text link button, and one to the OPAC search button.

Figure 42: Full text search with link resolver

Since there is an online subscription for the journal containing the article (amber traffic light), the article can now also be accessed.

Especially when the red traffic light is shown, you should read the additional information on the page; often you will find other links to the document or you can directly request an interlibrary loan or document delivery.

#### 4.2.6 From the result to the printed copy

In the example shown above (Figure 42), the area "Printed version" indicates that the university library also holds a printed copy of the journal. Hence, you can also search for the journal directly in the catalogue (OPAC) by clicking on the highlighted double arrow:



Figure 43: Journal in the catalogue (OPAC)

You can see the location in the lower area on the detail page of a result:



Figure 44: Location information in the catalogue (OPAC)

Keep in mind that the catalogue, i.e. the first tab in JUSTfind, only lists journals; articles are listed only in exceptions. Therefore, you can search for articles in the second tab "Articles & more".

You can also find printed copies of books in the first tab. If you only want to find printed books and no e-books, you can determine the access type in the facettes on the left.



Figure 45: Printed books in the catalogue (OPAC)

The detail view again provides the location information.

### 4.3 Expert search

There are a number of tools for the professional literature search. We want to introduce the most important ones. However, you should take your time to familiarise yourself with the use of any of these tools in order to be able to use the most valuable search options. Since the web interfaces of these search portals change relatively often, you should take a look at their current webpage as well as the explanations/help that is always provided there.

#### 4.3.1 DBIS search in (bibliographic) databases

Scientific literature is indexed and listed in bibliographic specialist databases and can be searched there. The index of these databases is called "database info system" - DBIS. The databases themselves generally do not contain full text versions but can provide a link to them.

Fachgebiete	Anzahl
Allgemein / Fachübergreifend	1179
Allgemeine und vergleichende Sprach- und Literaturwissenschaft	260
Anglistik, Amerikanistik	200
Archäologie	146
Architektur, Bauingenieur- und Vermessungswesen	170
Biologie	323
Chemie	151
Elektrotechnik, Mess- und Regelungstechnik	35
Energie, Umweltschutz, Kerntechnik	122
Ethnologie (Volks- und Völkerkunde)	125
Geographie	232

Figure 46: The specialist overview in DBIS

Very often, the search in a specialist database is also necessary if you want to conduct a very complex search or require a specialist thesaurus for help. Or the database cannot be searched with JUSTfind like, for example, the database *Fachinformationssystem Bildung (FIS)* (subject information system for education) important in pedagogy. It can also be reasonable to use the special features of a database: For example, "ISI Web of Science" also states the impact factor so that the importance of articles can be seen. JUSTfind would list these articles but would not be able to provide this information.

Sammlung: Im HDS ausgewertete Datenbanken (im Aufbau)

▲

**Auswahl**

Sortierung der Ergebnisse

Gesamtangebot (102 Treffer)	Zugang
Agris	frei zugänglich (HDS)
American Bibliography of Slavic and East European Studies	Uni-Netz
Année Philologique	Uni-Netz
Aphasiology Archive, The	frei zugänglich (HDS)
Archive of European Integration	frei zugänglich (HDS)
Arts & Humanities Citation Index	Uni-Netz
arXiv.org e-Print archive	frei zugänglich (HDS)
ATLA Religion Database	Uni-Netz
Business Source Premier (via EBSCO Host)	Uni-Netz
CogPrints	frei zugänglich (HDS)
Directory of Open Access Journals	frei zugänglich (HDS)
ECONIS	frei zugänglich (HDS)

Figure 47: Databases evaluated in JUSTfind/HDS

You can access the DBIS list of specialist databases sorted alphabetically or by subject for example using the tab "Other information sources" in JUSTfind:



Figure 48: "Other information sources" tab in JUSTfind

You can easily determine the most important databases for your subject in the subject overview and you can see if these are already included in JUSTfind or if access is possible and reasonable in a different way. The following Figure demonstrates this for medicine: "PubMed" and the "Web of Science Core Collection" are included in JUSTfind (indicated in the text as well as with the "+" inside the amber traffic light symbol).

Fachgebiet: Medizin		
<b>Auswahl</b>		
Sortierung der Ergebnisse	alphabetisch	Go!
<b>TOP-Datenbanken (7 Treffer)</b>		
		<b>Zugang</b>
AMBOSS	zugänglich im Campus-Netz, für Uni-Angehörige auch von außerhalb	●
Cochrane Library	zugänglich im Campus-Netz, für Uni-Angehörige auch von außerhalb	●
Examen online Vorklinik	zugänglich im Campus-Netz, für Uni-Angehörige auch von außerhalb	●
Medline	zugänglich im Campus-Netz, für Uni-Angehörige auch von außerhalb	●
MEDPILOT	frei zugänglich	●
PubMed	frei zugänglich (JUSTfind)	●
Web of Science Core Collection	zugänglich im Campus-Netz, für Uni-Angehörige auch von außerhalb (JUSTfind)	●+
<b>Gesamtangebot (325 Treffer)</b>		
		<b>Zugang</b>
AAP Policy / American	frei zugänglich	●

Figure 49: The most important databases in a DBIS subject overview

By clicking on the name of a database, you can get more detailed information about it. For example, you can find out which subject areas it covers and which document types are evaluated, how many citations are included over which time period, and how current the data are.

You can access the bibliographic information as well as abstracts in the results list of the subject databases. A full text version is included only rarely but often linked. If this is not the case, you can search for the journal or book. In some databases, the button "HeBIS Full text search" might offer more help; otherwise, use JUSTfind.

	Web address	QR code
<b>DBIS subject overview of JLU Gießen</b>	<a href="http://rzblx10.uni-regensburg.de/dbinfo/fachliste.php?bib_id=ubgie">http://rzblx10.uni-regensburg.de/dbinfo/fachliste.php?bib_id=ubgie</a>	
<b>"Other info sources" tab in JUSTfind</b>	<a href="https://hds.HeBIS.de/ubgi/Infos/Detail">https://hds.HeBIS.de/ubgi/Infos/Detail</a>	

#### 4.3.2 Specifically finding relevant literature with Web of Science

Finding really relevant and current literature in a subject area easily is a dream that comes true a little bit with the search in Web of Science (WoS). It basically evaluates several citation databases (↪ chapter 6.1.3). The foundation for this is the word list you prepared in advance as precisely as possible (↪ chapter 3.2.1) and which you can use for your journey in WoS. Of course, you can also conduct your search in JUSTfind and have the results sorted by relevance, but the direct search in the WoS has some advantages.

Let us assume you want to discuss social media like Facebook and others in an assignment. Therefore, a reasonable search term in the WoS could be "social media". The search area "Topic" also allows the search, for example, in the abstract.

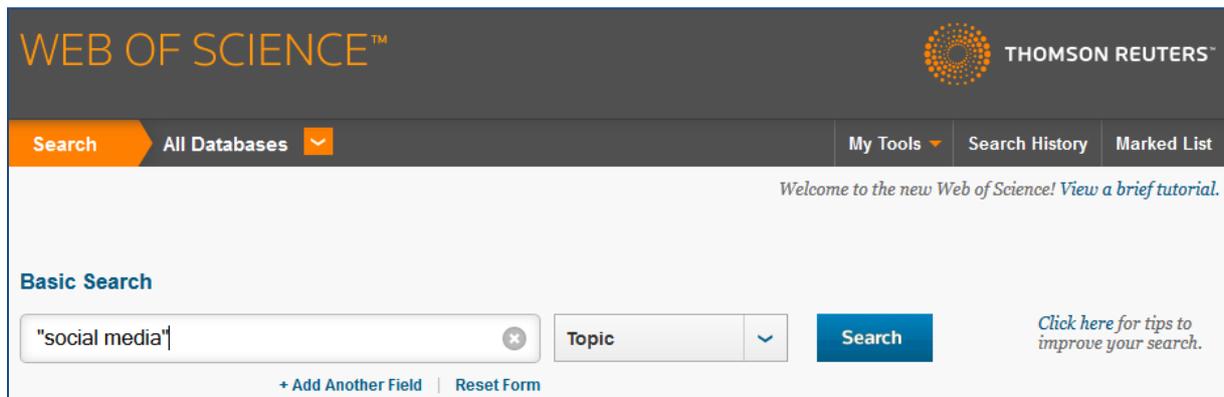
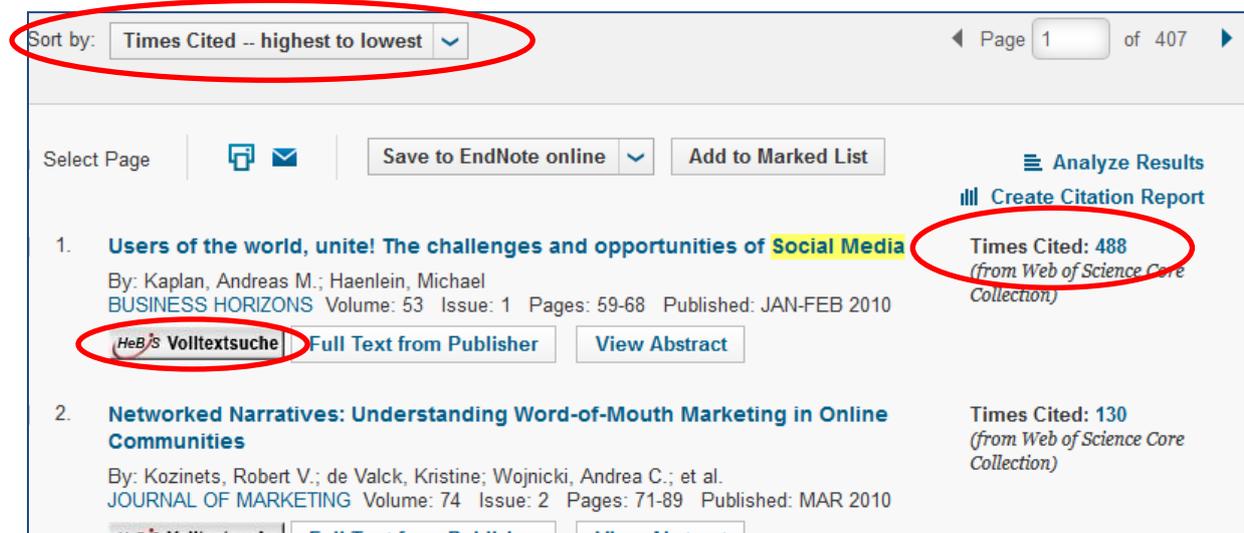


Figure 50: Start of the search in Web of Science

You can now sort the following results list based on the number of citations, which would give you the article "Users of the world unite! The challenges and opportunities of Social Media" by Andreas Kaplan and Michael Haenlein published in the journal "Business Horizons" as number 1. Up to November 2014, the article was already cited 488 times in other scientific journals and therefore should play a central role for the topic "social media".



Sort by: Times Cited -- highest to lowest

Page 1 of 407

Select Page | Save to EndNote online | Add to Marked List | Analyze Results | Create Citation Report

- Users of the world, unite! The challenges and opportunities of Social Media**  
 By: Kaplan, Andreas M.; Haenlein, Michael  
 BUSINESS HORIZONS Volume: 53 Issue: 1 Pages: 59-68 Published: JAN-FEB 2010  
 Times Cited: 488 (from Web of Science Core Collection)  
 HeBIS Volltextsuche | Full Text from Publisher | View Abstract
- Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities**  
 By: Kozinets, Robert V.; de Valck, Kristine; Wojnicki, Andrea C.; et al.  
 JOURNAL OF MARKETING Volume: 74 Issue: 2 Pages: 71-89 Published: MAR 2010  
 Times Cited: 130 (from Web of Science Core Collection)  
 HeBIS Volltextsuche | Full Text from Publisher | View Abstract

Figure 51: Results list sorted by number of citations in Web of Science

Using the HeBIS full text search, you would get access to the article very quickly:



Figure 52: Section of a full text version

But let us step back again and look at the detail view of the results in WoS by clicking on the title of the entry:



Figure 53: Detail view in Web of Science with "Citation Network"

You can see immediately, where it was referenced in later articles and which sources were used in the article itself ("Cited References")

You will see that it can be good fun to familiarise yourself with a subject in this way while doing your own cutting-edge search and research.

	Web address	QR code
Search in Web of Science	<a href="http://apps.webofknowledge.com/">http://apps.webofknowledge.com/</a>	
Video tutorials about Web of Science	<a href="http://wokinfo.com/training_support/training/web-of-knowledge/">http://wokinfo.com/training_support/training/web-of-knowledge/</a>	

### 4.3.3 The Elektronische Zeitschriftenbibliothek (EZB, electronic journal library)

The Elektronische Zeitschriftenbibliothek (EZB) is the right port of call if you are looking for a certain *electronic* journal (= "e-journal"). It contains information about and links to more than 100,000 jour-

nals (2014). About ¼ of the titles are *pure* online journals, while the others usually also exist as printed versions which are not necessarily available in Gießen.

You can either start your journal search specifically from the EZB homepage or you can try the familiar JUSTfind search interface in the first tab "Catalogue (OPAC)". However, JUSTfind will generally take you to the relevant EZB page as quickly:



Figure 54: Link to EZB in JUSTfind

After entering the journal title "Grundschulunterricht" (primary school education), JUSTfind provides a link "Full text" leading to the relevant page in EZB:



Figure 55: The journal "Grundschulunterricht" in EZB

If you get too many or imprecise results for your search in JUSTfind, you can search using full titles or the ISSN instead of a single keyword.

However, for browsing the journal collection of your subject, it is more reasonable to start the search directly with the subject overview of EZB:



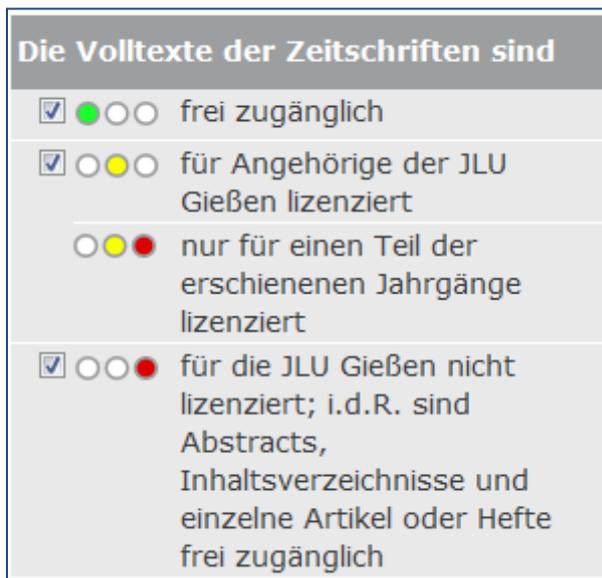
**Elektronische Zeitschriftenbibliothek**  
Bibliothekssystem der Justus-Liebig-Universität Gießen

Der Service EZB UB Gießen Datenbanken Login-Tipps A<sup>+</sup> A A<sup>-</sup> 🗨️ 📧 🌐

Zeitschriften	Volltextzeitschriften nach Fachgebiet	
nach Fächern	<a href="#">Allgemeine und vergleichende Sprach- und Literaturwissenschaft, Indogermanistik, Außereuropäische Sprachen und Literaturen</a>	2556
alphabetisch	<a href="#">Allgemeines, Fachübergreifendes</a>	8317
erweiterte Suche	<a href="#">Anglistik, Amerikanistik</a>	1286
neu in der EZB	<a href="#">Archäologie</a>	927
Zeitschrift <input type="text"/> <input type="button" value="suchen"/>	<a href="#">Architektur, Bauingenieur- und Vermessungswesen</a>	1688
<b>Bibliotheksauswahl</b>	<a href="#">Bildungsgeschichte</a>	315
Einstellungen	<a href="#">Biologie</a>	4737
Kontakt	<a href="#">Chemie und Pharmazie</a>	2431
	<a href="#">Elektrotechnik, Mess- und Regelungstechnik</a>	1185

Figure 56: The subject overview in EZB

A traffic light system informs you if the journals are freely accessible (traffic light = green), licensed for the university and maybe only accessible in parts (traffic light = amber) or not accessible (traffic light = red):



**Die Volltexte der Zeitschriften sind**

- frei zugänglich
- für Angehörige der JLU Gießen lizenziert
- nur für einen Teil der erschienenen Jahrgänge lizenziert
- für die JLU Gießen nicht lizenziert; i.d.R. sind Abstracts, Inhaltsverzeichnisse und einzelne Artikel oder Hefte frei zugänglich

Figure 57: The traffic light system of EZB

In general, you can access the publisher's webpage via the link. A green traffic light indicates that you have direct access to the full text version, if the traffic light is amber you may have to be in the campus network or connect via VPN to get access.

You can also search the EZB via the Android app. Again, if you are in the university network, you can access the journals directly.

In contrast to full journals, the *articles* contained can often be found more easily with so-called bibliographic subject-specific databases (➔ chapter 4.2) or in JUSTfind via the "Articles & more" tab.

	Web address	QR code
EZB	<a href="http://rzblx1.uni-regensburg.de/ezeit/search.phtml?bibid=UBGIE">http://rzblx1.uni-regensburg.de/ezeit/search.phtml?bibid=UBGIE</a>	
EZB app for Android	<a href="https://play.google.com/store/apps/details?id=de.unibib.regensburg.ezb">https://play.google.com/store/apps/details?id=de.unibib.regensburg.ezb</a>	

#### 4.3.4 The Zeitschriftendatenbank (ZDB, journal database)

The Zeitschriftendatenbank (ZDB) is a central database for title and holding information of continuously collected editions (journals, newspapers, etc.) in approx. 4000 German and Austrian libraries. In addition to printed editions, it also contains electronic journals.

Hence, if you cannot find a journal in JUSTfind or the EZB, the search here can be worthwhile especially for printed editions that are **not** held by the university library Gießen.



The screenshot shows the ZDB search interface. At the top, there are navigation links: Suchen, Suchergebnis (highlighted), Erweiterte Suche, Zwischenablage, Hilfe, Kontakt, and Impressum. The search bar contains 'suchen [und]' and 'Titel (Stichwort) [TIT]' with a dropdown menu set to 'Titel'. The search term 'Zeitschrift für Pädagogik' is entered, and a 'suchen' button is visible. Below the search bar, there are tabs for 'Kurzliste' and 'Besitznachweise'. The main content area shows the search results for 'Zeitschrift für Pädagogik' with details: 'Titel: Zeitschrift für Pädagogik. - Weinheim ; Basel : Beltz Juventa 1.1955 - ISSN:0044-3247'. Underneath, there is a section for 'Besitznachweise der Bibliotheken' with a search box and a 'suchen' button. Several library holdings are listed, including 'HES <1015> Darmstadt Ev. HS' and 'HES <101b> Frankfurt/M DNB'. The 'HES <1015> Darmstadt Ev. HS' entry provides detailed information: 'Bibliothek: HES <1015> Darmstadt Ev. HS', 'Grundsignatur: Zs Zei', 'Standort: Jahrgänge vor 1990 im Archiv', 'Bestand: 17.1971 -', and 'Fernleihe: nein'.

Figure 58: Example of a journal record in the Zeitschriftendatenbank (ZDB)

The ZDB is a pure record database, i.e. you cannot get full text versions here.

	Web address	QR code
ZDB	<a href="http://dispatch.opac.d-nb.de/DB=1.1/">http://dispatch.opac.d-nb.de/DB=1.1/</a>	

### 4.3.5 Textbooks

Libraries often still have textbook collections providing several copies of text books for you that can be borrowed. However, you will only find editions up to 2013 there because new books have been sorted according to the so-called RVK system (➔ chapter 4.3.7) since then and are placed in a different location.

Currently (2015), a virtual textbook collection is under preparation that will combine the central text books of the subjects again, at least virtually.

### 4.3.6 Reserved reading shelves

Teachers often compile literature for their current lectures in reserved reading shelves. **Conventional reserved reading shelves** often consist of printed books, which are provided for copying or reading but cannot be borrowed. Reserved reading shelves can generally be found in the respective subject group in our library. You can find an overview of these reserved reading shelves as well as their locations on our internet pages (see below).

**Electronic reserved reading shelves**, on the other hand, are accessible online. This is described in ➔ chapter 5.3.5; however, the link to the respective overview can be found below.

	Web address	QR code
List of conventional reserved reading shelves	<a href="http://www.uni-giessen.de/ub/lernort-ausstattung/semesterapparate/copy_of_semesterapparate">http://www.uni-giessen.de/ub/lernort-ausstattung/semesterapparate/copy_of_semesterapparate</a>	
List of electronic reserved reading shelves	<a href="http://semapp.ub.uni-giessen.de/semapp/semapp/liste.xml">http://semapp.ub.uni-giessen.de/semapp/semapp/liste.xml</a>	

### 4.3.7 In the library

Of course, you will find the best conditions for your literature search in the library. There are search PCs, you can browse through the shelves, be guided by the shelving system or take advantage of the information provided by specialist librarians.

In ➔ chapter 3.2.2 (Systematic search), we already described that books and other media are shelved in the library based on a system in accordance with scientific subjects and subject areas: The **Regensburger Verbundklassifikation (RVK)**. Hence, when you have found such an RVK shelfmark during your search, you can find your book/other medium directly at the shelf and also take a look at the items to the left and right of it. Since topically similar books are placed next to each other, there is a good chance that you may find additional relevant literature in this way.



Figure 59: RVK notation at the shelf

This is very similar for slightly older holdings that are shelved based on the old system. Here, you mostly find a corresponding overview in form of a folder at the shelves, e.g. the "Fachübersicht Germanistik" (subject overview German philology) on the first floor of the open access area of the university library. If, for example, you are searching for secondary literature on Goethe's Faust, you would look for books in German philology = "ger". German authors of the modern age (1770-1880) are listed under the letter "H", the first letter of the last name gives the second letter, i.e. "Hg". The number "4" in this case indicates secondary literature on individual works or groups.

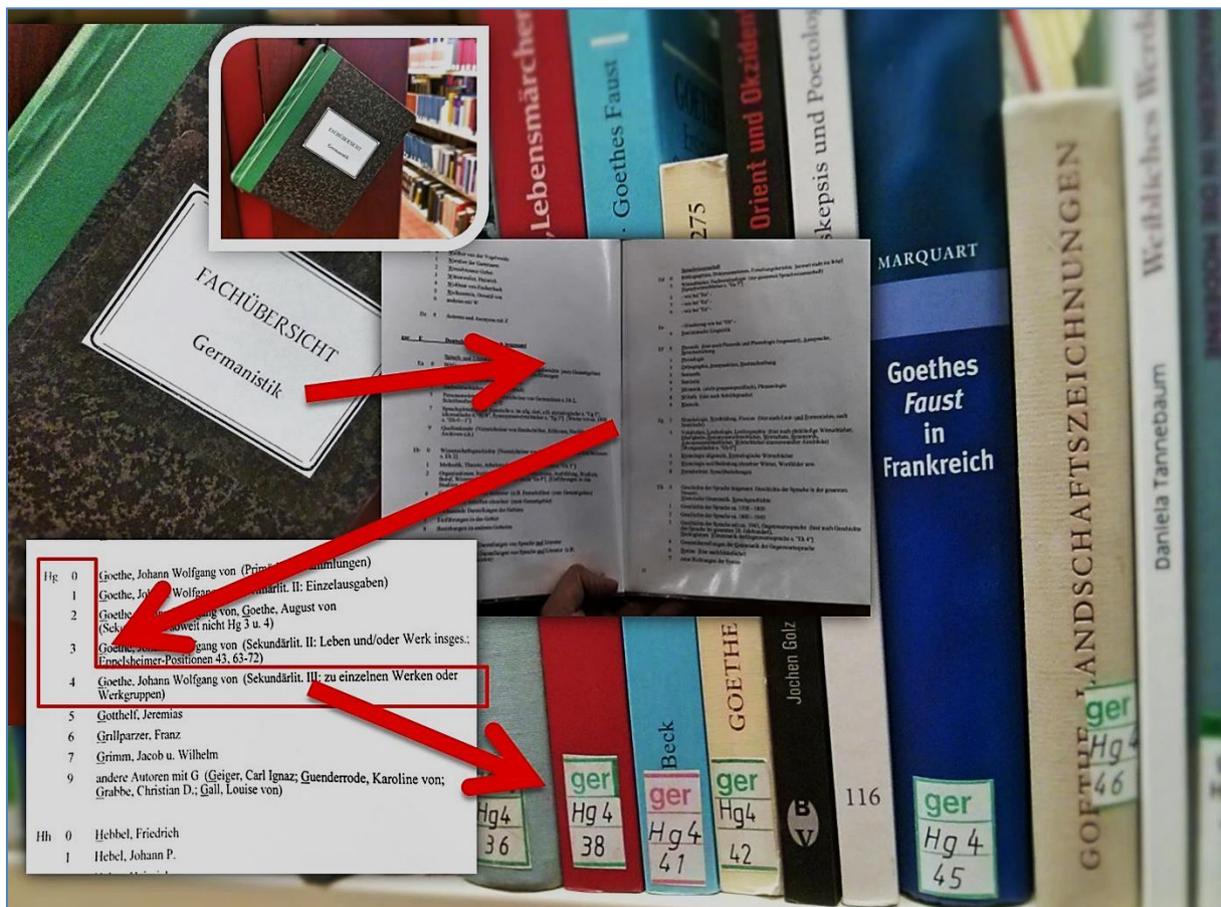


Figure 60: From the subject overview at the shelf to the book (old system)

Keep in mind that especially the old system is not the same in all libraries.

The system in the library is currently changed so that books may be placed in different locations depending on their date of publication. At the shelves with slightly older books you will find folders that provide information about the respective subject-specific system.

Newer books and other media are currently located together at a certain location in the respective library, for example on the first floor of the university library in the area of the large reading room. As described above, they are shelved according to RVK and sorted based on topic and subject. If you follow the link to the online version of the RVK, you will soon see how helpful this can be for a topical search (➔ chapter 3.2).

	Web address	QR code
<b>Explanation - RVK (JLU Gießen)</b>	<a href="http://www.uni-giessen.de/ub/rnavi/a-z/az-r/ag2-RVK">http://www.uni-giessen.de/ub/rnavi/a-z/az-r/ag2-RVK</a>	
<b>RVK system (Regensburg)</b>	<a href="http://rvk.uni-regensburg.de/index.php?option=com_rvko&amp;view=show&amp;Itemid=53">http://rvk.uni-regensburg.de/index.php?option=com_rvko&amp;view=show&amp;Itemid=53</a>	
<b>Library system: locations and opening times</b>	<a href="http://www.uni-giessen.de/ub/rnavi/standorte">http://www.uni-giessen.de/ub/rnavi/standorte</a>	

#### 4.4 Open Access

For the last few years, a completely new publishing culture has been established also and especially for scientific literature: Open Access (OA). OA shakes up the traditional publishing paths due to the ever present internet. It is as easy as never before to provide documents openly for everybody without necessarily being dependent on a publisher. On the one hand, there are the advantages of open, fast and extensive distribution free of charge; however, on the other hand, aspects of quality, continuous availability as well as locating the documents must be mentioned. There are many approaches for the solution of this problem, but the OA movement has just started.



Figure 61: Open access logo of the Public Library of Science

JLU Gießen also has an open access publication and document server, the "Gießener Elektronische Bibliothek" ("GEB", Gießen electronic library). The GEB is available for all JLU facilities and their members. Not only dissertation and habilitation theses can be provided here but also Bachelor and Master theses or assignments. This also includes the appearance, for example in catalogues, the pos-

sibility for referencing and continuous availability. The GEB is described in more detail in ↻ chapter 5.3.4.

OA publications are either so-called “gold” open access publications published directly on special OA servers, in OA journals or by OA publishers. “Green” open access publication, on the other hand, are published primarily in traditional journals requiring a licence but can also be published on other publication servers (e.g. GEB) after a certain time.

For the literature search, this means that you will often find OA publications via JUSTfind but an additional OA search may be useful. For journals or articles, the **Directory of Open Access Journals** might be helpful and for books the **Directory of Open Access Books**; as always, you can find the links at the end of the chapter.

One of the greatest advantages of open access literature is that it is available in digital format and can be viewed or downloaded immediately after a successful search.

	Web address	QR code
Open access journals	<a href="http://doaj.org/">http://doaj.org/</a>	
Open access books	<a href="http://doabooks.org/doab">http://doabooks.org/doab</a>	
Gießener Elektronische Bibliothek (GEB)	<a href="http://geb.uni-giessen.de/geb/">http://geb.uni-giessen.de/geb/</a>	

#### 4.5 End of the search and securing results

At the end of the chapter about search, we want to briefly see where we are: We may already have secured electronic books, articles and other media. The search may have been done in the library so that literature was acquired at the same time.



Figure 62: Securing results in JUSTfind

However, in many cases we have a shelfmark at the end of the search, which tells you where the literature is located. This combination of letters and numbers can generally also be found on the spine of the book. The shelfmark or, even better, the more detailed information from the detail view (↻ chapter 4.2.3.5) can, of course, be printed conventionally, compiled with copy & paste or written down by hand. However, this can be done more comfortably with the watch list in JUSTfind, via email or as export (see Figure 62). Scanning with a QR reader directly from the BIBMAP is also possible; the result even contains a location map (↻ see chapter 5.4.5).

The earlier you start professionally securing your search results the better. Literature management programmes like Citavi (➔ chapter 7.3) are useful for this. For example, you can also use it to create a list of the literature you require.

You can go to the library equipped with this information and perhaps even a location description (➔ chapter 5.4.5) or select another way to acquire your literature.

## 5. Acquiring literature

In case of electronic resources like e-books or e-journals, literature is often already acquired during the search - so why do we need an extra chapter? Firstly, because there are still a sufficient number of relevant physical media that are actually kept in the library - mainly, of course, books. When doing a literature search from home, they must be viewed and borrowed in a second step. And secondly, it is useful to review all search results rather than getting lost reading the first downloaded documents.

We will discuss acquisition by buying (➔ chapter 5.1), with a book request/acquisition suggestion (➔ chapter 5.2), use of electronic resources (➔ chapter 5.3), possibilities in the libraries (➔ chapter 5.4), reserved books (➔ chapter 5.5), interlibrary loans (➔ chapter 5.6) and document delivery (➔ chapter 5.7).

### 5.1 Buying?

Why should you buy a book or other medium if they can also be borrowed in the university library? In many subjects, there are standard and reference books that may accompany you throughout your university course and beyond. If you also like to make written notes and highlight passages directly in a book, buying can really be reasonable. Some books are a bit more expensive, others less. As alternative to buying a new book, you can find several portals and vendors on the internet where you can purchase used or slightly damaged books more cheaply. We will show you alternatives to buying in the next chapters.

### 5.2 Book request and acquisition suggestion

If a book or other medium is not available in the university library holdings, you can make a suggestion for acquisition. If the book/medium could also be interesting for others, the chances are good that you may be able to borrow it soon. Using the following form is the easiest way to submit your request:

	Web address	QR code
<b>Form for acquisition suggestion</b>	<a href="https://www.uni-giessen.de/ub/rnavi/kontakt/anschaffv">https://www.uni-giessen.de/ub/rnavi/kontakt/anschaffv</a>	

### 5.3 Electronic resource? VPN, eduroam or university network!

If you can identify yourself digitally as member of the university, you have free access to the most important electronic sources like e.g. e-books, e-journals and databases.

On the university campus, you can use your own mobile device like notebook, tablet or smartphone when you are connected to the WiFi ("eduroam") or use the existing network sockets. Furthermore, a number of computers are available that provide complete access to electronic resources.

From home, you can select a so-called VPN connection. VPN stands for **V**irtual **P**rivate **N**etwork and creates a kind of tunnel to the JLU network. You can find information about how to set it up on the pages of the university IT service. With your university username and the network password you can immediately access contents via WebVPN that are not accessible otherwise. To do this, you can find a button in JUSTfind just above the search window:

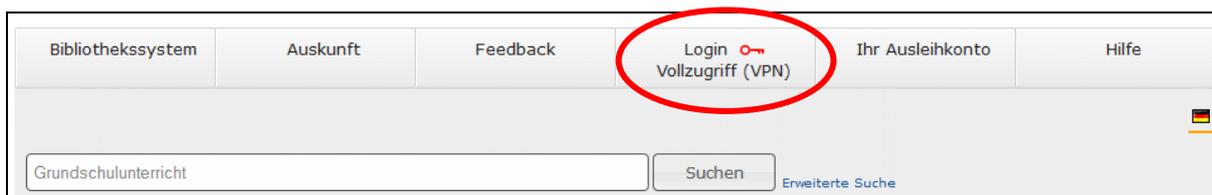


Figure 63: Ad-hoc VPN connection in JUSTfind

After entering your username and network password, you get full access to JUSTfind as well as other search sources especially with the present links:

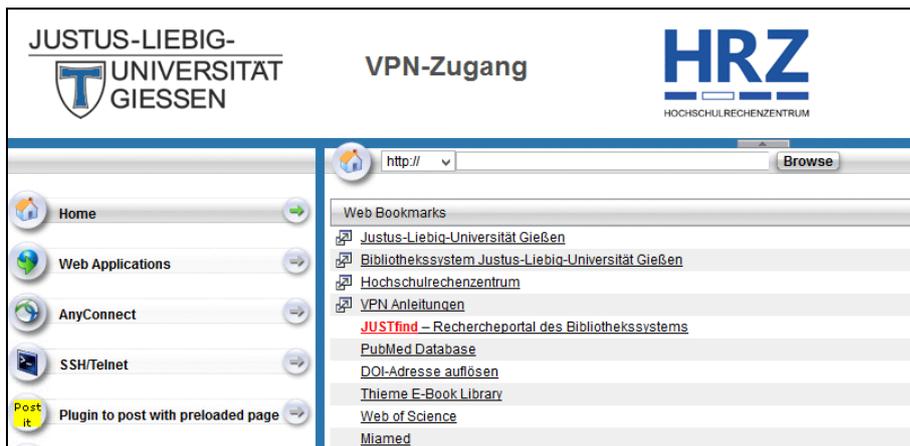


Figure 64: WebVPN

	Web address	QR code
<b>WebVPN</b>	<a href="https://vpn.uni-giessen.de/">https://vpn.uni-giessen.de/</a>	
<b>VPN information from IT services</b>	<a href="https://www.uni-giessen.de/cms/fbz/svc/hrz/svc/netz/campus/vpn/vpn">https://www.uni-giessen.de/cms/fbz/svc/hrz/svc/netz/campus/vpn/vpn</a>	
<b>eduroam information from IT services</b>	<a href="https://www.uni-giessen.de/cms/fbz/svc/hrz/svc/netz/campus/wlan/eduroam">https://www.uni-giessen.de/cms/fbz/svc/hrz/svc/netz/campus/wlan/eduroam</a>	

### 5.3.1 E-books

Acquiring e-books - a VPN connection is necessary - is generally very easy: In the facets of the results list, select the access type "Online" together with "Book" (➔ chapter 4.2.3) so that only e-books will be listed. In most cases, you can download them or single chapters directly in PDF format.

Tips for using e-books from different providers can be found on our webpage:

	Web address	QR code
<b>Tips for using e-books</b>	<a href="http://www.uni-giessen.de/ub/literatursuche/nutzung/ebooks-tipps">http://www.uni-giessen.de/ub/literatursuche/nutzung/ebooks-tipps</a>	

### 5.3.2 Journals

The most journals for which the university has a subscription are available online and therefore can best be searched in JUSTfind or the Elektronisch Zeitschriftenbibliothek (electronic journal library) (➔ chapter 5.3.2.1). You can find out how to access printed copies in ➔ chapter 5.3.2.2.

#### 5.3.2.1 Elektronische Zeitschriftenbibliothek (EZB, electronic journal library)

As already described in ➔ chapter 4.3.3, you can access the respective publisher homepage via the EZB. If the journal is freely accessible (traffic light = green) or licensed for the University Gießen (traffic light = yellow), you can generally access the journals or the articles in the journal as full text versions. You may have to create a VPN connection to the university.

	Web address	QR code
<b>EZB</b>	<a href="http://rzblx1.uni-regensburg.de/ezeit/search.phtml?bibid=UBGIE">http://rzblx1.uni-regensburg.de/ezeit/search.phtml?bibid=UBGIE</a>	
<b>EZB app for Android</b>	<a href="https://play.google.com/store/apps/details?id=de.unibib.regensburg.ezb">https://play.google.com/store/apps/details?id=de.unibib.regensburg.ezb</a>	

#### 5.3.2.2 Printed journals and newspapers in the university library holdings

There is a shelf with domestic and foreign newspapers in the journal reading room of the university library. Opposite, the journal shelves are sorted by subject where you can find the respective current issue of a journal; the other issues of the current publishing year are behind the closet door.

Older issues are bound as annual issues by a bookbinder and are then moved to the reading room at the end of the respective subject group. If you cannot find a newspaper or journal, just ask at the information desk. You can also find journals in other library locations.

Out of the over thirty-thousand subscriptions the university library holds, only a small number can be found as print version in the library; the most journals are only available online. The journal may also be located in a different library location. You can find out in JUSTfind for which printed journals the library branches and subject-specific libraries have a subscription:

The screenshot shows a library catalog search results page. At the top, there are tabs for 'Katalog (OPAC) (15)', 'Artikel & mehr (262377)', and 'Weitere Infoquellen'. Below the tabs, the search results are displayed under the heading 'Bücher, E-Books, Zeitschriften und andere Medien'. The results are limited to 15 hits. On the left side, there is a sidebar for filtering results. The 'Suchfilter entfernen' button is highlighted with a red circle. Under the 'Zugriffsart' (Access type) filter, 'Gedruckt/Datenträger' (Printed/Data carrier) is selected. Under the 'Medientyp' (Media type) filter, 'Zeitschrift/Zeitung' (Journal/Newspaper) is selected. The search results list three items:

- 1** Zeitschrift, Zeitung: **Journal of speech and hearing disorders : a journal of the American Speech and Hearing Association**. Bestand anzeigen. Washington, DC : Ass., 1948-1990.
- 2** Zeitschrift, Zeitung: **Journal of speech and hearing research : JSHR**. Bestand anzeigen. Rockville, Md. : American Speech-Language-Hearing Association, 1958-1996.
- 3** Zeitschrift, Zeitung: **American speech : a quarterly of linguistic usage**.

Figure 65: Finding printed journals with JUSTfind

### 5.3.3 Articles

How you can access the full text versions of individual articles was already described in chapter 4.2.5.2. If you cannot find what you are looking for on the "Articles & more" tab, it may be worthwhile to search for the journal that contains the article. Again, the EZB (chapter 5.3.2.1) would be the right place to go to.

### 5.3.4 Gießener Elektronische Bibliothek (GEB)

The Gießener Elektronische Bibliothek (GEB, Gießen electronic library) is the central open access publication and document server of Justus-Liebig University for members of JLU. As the name suggests, the contents of the GEB are generally available online.

A search directly in the GEB is possible but the contents are also linked with JUSTfind so that you can use the familiar search method. The documents in the GEB are normally available as download in PDF format.

	Web address	QR code
<b>Gießener Elektronische Bibliothek (GEB)</b>	<a href="http://geb.uni-giessen.de/geb/">http://geb.uni-giessen.de/geb/</a>	

### 5.3.5 Electronic reserved reading shelves

Some teachers provide literature for their lectures on the platform for electronic reserved reading shelves. Generally, these materials are only accessible after identification as course participant. However, some teachers also use Stud.IP or other platforms to provide their electronic reserved reading shelves.

	Web address	QR code
<b>Reserved reading shelves online</b>	<a href="http://semapp.ub.uni-giessen.de/semapp/semapp/liste.xml">http://semapp.ub.uni-giessen.de/semapp/semapp/liste.xml</a>	

### 5.3.6 Other media

In chapter 2.3.4, the basics of "media beyond paper" were already discussed. How can you acquire those, if available? You probably already know the answer: With JUSTfind. Using the facette "Media type", you can determine the availability and find further information in the detail view. However, there are few (physical) media available other than CDs and DVDs. Possible types are listed in Figure 66.



Figure 66: Other media in JUSTfind

## 5.4 In the library

In this chapter, we will explain what other libraries belong to the university at JLU Gießen, what you should think of when visiting them and what you will find there. You can also explore the main library "UB" in the Philophikum I using an audio guide in the library or visit it virtually in a 360° tour. Both options are linked on the following page:

	Web address	QR code
<b>Audio guide, 360° tour and more</b>	<a href="https://ilias.uni-giessen.de/ub">https://ilias.uni-giessen.de/ub</a>	

### 5.4.1 Locations

The largest libraries of JLU are

- the university library UB in the Philosophikum I as central library and subject-specific library for humanities,
- the library branch for law and economics,
- the library branch in the Philophikum II as subject-specific library for educational science, theology, political science, sociology, didactics of natural sciences, drama and music, and art pedagogy,
- The library in the Chemikum is a subject-specific library for medicine, veterinary medicine, chemistry, physics, nutritional sciences and home economics, and

- The library Zeughausbibliothek as subject-specific library for geography and agriculture.

There are also subject-specific libraries for history and art history, German philology, English philology, Romance philology, mathematics and computer sciences, veterinary medicine and medicine. The entire book collection is currently (November 2014) distributed over 93 literature locations.

You can find information about the individual library locations and their opening times on our homepage.

	Web address	QR code
<b>Locations and opening times</b>	<a href="http://www.uni-giessen.de/ub/rnavi/standorte">http://www.uni-giessen.de/ub/rnavi/standorte</a>	

#### 5.4.2 General information on loans

Borrowing books and other media from our collections is free of charge. Students only need their chipcard. If you do not study at JLU, you will get a library card at the information desk. We recommend that you ask for a password for the online activation of your library account or to create one yourself online. With this password, you can use the internet to comfortably extend loan periods and reserve borrowed books.

You can keep your borrowed books and other media for four weeks and renew the loan period up to three times. However, this can only be done when the loan period has not expired and nobody has reserved the item. You will have to pay three Euros for every book you return late. However, our email service sends a reminder a few days before the end of the loan period. Your library account also shows when each item must be returned.

	Web address	QR code
<b>Information on loans and interlibrary loans</b>	<a href="http://www.uni-giessen.de/ub/ausleihe-fernleihe">http://www.uni-giessen.de/ub/ausleihe-fernleihe</a>	
<b>Information on passwords for the library account</b>	<a href="https://www.uni-giessen.de/ub/rnavi/a-z/az-p/ag3-ausleihpasswort">https://www.uni-giessen.de/ub/rnavi/a-z/az-p/ag3-ausleihpasswort</a>	

#### 5.4.3 Rules

In order to offer our media collection in a consistently good condition and to provide a good learning atmosphere, the libraries have certain rules: Please avoid noise in form of ringtones and other tones from your mobile. Reading rooms and open access holdings areas must not be entered with jackets and bags; wardrobes are provided. Food and drink (except water in normal bottles) are not allowed in the reading rooms and the open access holdings area.

Current regulations for the use and organisation of the JLU libraries can be found in detail on our internet pages:

	Web address	QR code
<b>Regulations for the use and organisation of the university library</b>	<a href="https://www.uni-giessen.de/ub/ueberuns/bib/rechtliche-grundlagen">https://www.uni-giessen.de/ub/ueberuns/bib/rechtliche-grundlagen</a>	

#### 5.4.4 Library desk

We will be available to you at the respective desks during the entire opening time. Here, you can borrow books, CD-ROMs and other media as well as baskets for the transport of your materials.

We will also always try to answer your questions at the desk. For example, if you cannot find an item on a shelf or the desired title in the catalogue. But also if you have ordered a book from the magazine, which you just want to or are only allowed to read in the reading room.

#### 5.4.5 Open access holdings area

We have already discussed the system of the open access holdings area, especially in chapter 4.3.7. Newer books are located according to RVK, older ones mainly according to the old system. Since the location in the library is based on the system, the next step to acquisition is not huge. Most books/other media have a green mark at the shelfmark sign, which means that you can simply take them from the shelf and borrow them at the desk for four weeks using your chipcard or your library card.

Overview plans show you the way to the shelf; they can be found on all floors.

Fächerübersicht Freihandbereich (FH)						
<b>1. Stock</b>						
FACH	REGALE	FACH	REGALE	FACH	REGALE	FACH
000 A-Z	147-154	Germ Germanistik	21- 34	kid Kinderbücher		Nähe 21
all Allgemeines	103-110		172-175	SLS Handschr./Inkunabelkunde		
	Raum 104	hes Hassiaca	101-102	28-30		128a-128e
ger Germanistik	159-169	jur Rechtswissenschaft	110-118	vsp Vergl. Sprachwissenschaft		1- 16
			120-128			
<b>LBS LEHRBUCHSAMMLUNG/RECHT: REGALE 118 - 120 (GELBE BESCHILDERUNG)</b>						
<b>2. Stock</b>						
FACH	REGALE	FACH	REGALE	FACH	REGALE	FACH
agr Agrarwissenschaft	219-223	kun Kunstwissenschaft	226-231	rom Romanistik	241-245	
AlteGe Alte Geschichte	408-410	Kunst Kunstgeschichte	335-349	sla Slavistik	259-274	
	433-435	kyb Kybernetik	206-210	Slavistik Slavistik	246-258	
ang Anglistik	288-294	LBS Lehrbuchsammlung	232-256	SLS Numismatik 20, 20a	437	
Angl Anglistik	285-287	lit Literaturwissenschaft	279-282b	spo Sportwissenschaft	356-361, 369	
bio Biologie	210-212	mat Mathematik	204-206	Sport Sportwissenschaft	350-356	
bot Botanik	213-214	nat Naturwissenschaft allg.	201-203	spr Sprachwissenschaft	275-278	
DidGe Didaktik der Geschichte/ Fachjournalismus	402-407	ori Orientalistik	436-448	ssl Sonst. Sprachen u. Literaturen	283-284	
Eden Bibliothek der Eden-Stiftung	Raum 204	Orient Orientalistik	449	sta Statistik	208-210	
fil Filmwissenschaft	261b	OstGe Osteuropäische Geschichte	364-368, 370	Südheß. Südheßisches Wörterbuch	430-432	
his Geschichte	301-325	Pap Papyrologie	436-437	tea Theaterwissenschaft	261a	
kla Klassisches Altertum	233-239	phi Philosophie	421-429	tec Technik	217-218	
		Philos Philosophie	411-420	umw Umweltwissenschaft	224-225	
		psy Psychologie	359-369	vol Volkskunde	401	
		Psych Psychologie	327-334	zoo Zoologie	214-216	
<b>LBS LEHRBUCHSAMMLUNG: REGALE 232 - 256 (GELBE BESCHILDERUNG)</b>						
MIKROFORMEN	BIBLIOTHEK DER EDEN-STIFTUNG (Raum 204)	Atlanten				Stand: Oktober 2014

Figure 67: Location plan in the university library

During your search in JUSTfind, you also have the possibility to have the locations shown in an overview map:

**Universitätsbibliothek (UB), Otto-Behagel-Str. 8**

**Signatur:** FH all Gv 0.66 [Standort in der Bibliothek anzeigen](#)

**Status:** ●●● ausleihbar

Figure 68: Link to BIBMAP in the detail view of a result

After selecting "Show location in the library" in the detail view of a result, you are shown a map in the so-called BIBMAP. An embedded QR code allows you to transfer the map including shelfmark to your mobile device without problem.

**UB**  
FH all Gv 0.66 (2.-4.Ex.) wurde gefunden in:  
- Universitätsbibliothek - 1.OG Süd

**Universitätsbibliothek**  
1.OG Süd

**BIBMAP**

**Wegbeschreibung**  
Das 1.OG Süd befindet sich in der Universitätsbibliothek, Philosophikum I.

Figure 69: Showing location in the BIBMAP

#### 5.4.6 The textbook collection - a thing of the past

In some libraries in our library system, you will still find a textbook collection, where especially text books are compiled, often in large numbers. Especially new acquisitions are now located with the other literature using the RVK (↻ chapter 3.2.2). However, many older textbook holdings remain in the text book collections and are marked with the corresponding shelfmark.

However, a large virtual textbook collection is under preparation, which will re-compile the text books of one subject at least in a virtual environment at the end of 2015. You will find links to the catalogue entries in JUSTfind or direct links to the PDFs in case of e-books.

### 5.4.7 Items on holdshelf

Items on holdshelf predominately ensure that e.g. books that are often requested but rare remain available in the library. The waiting time for a reserved book of up to four weeks would simply be too long. The shelfmarks of these books have a red label and sometimes can only be borrowed for a very short period.

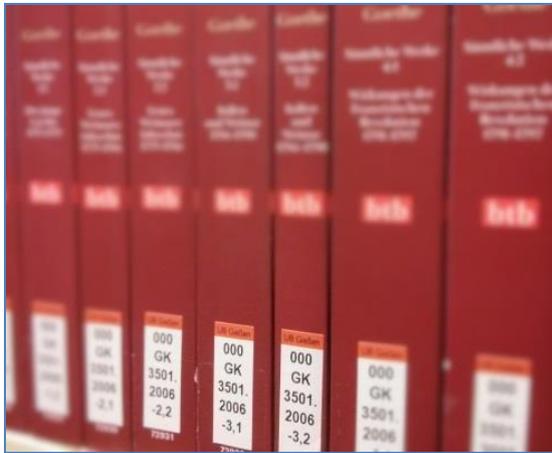


Figure 70: Books with red label

Only lexicons and newspapers are not loaned at all. But you can easily copy or scan them.

### 5.4.8 Copying or scanning

Copying machines are available in all our libraries, for which you can use the balance on your chip-card. Holders of a library card can get separate copier cards.

Scanning is also possible everywhere so that you can simply take home your documents on a USB drive. There are also useful apps for smartphones, which allow scanning of pages in good quality and sometimes also have text recognition (OCR). If you only need a few pages or sections of text, this may be the fastest and certainly a modern way.

### 5.4.9 Magazine

You may some time need a book you have to order from the magazine. The magazine is an area that is not accessible for you, where literature is stored in a very space-saving way. The magazine holdings are generally provided within a few hours; you can request an item online directly in the detail view of a result in JUSTfind.



Figure 71: Requesting a book from the magazine online

### 5.4.10 Conventional reserved reading shelf

We have already explained where the reserved reading shelves are located in ↻ chapter 4.3.6 and provided the appropriate links. If in doubt, ask your teacher.

In general, books and other media of a conventional reserved reading shelf are only provided for use in the library so that they are available at all times, similar to items on the holdshelf.

#### 5.4.11 Collections in the special reading room

The university library has collections from several centuries like antique papyruses, cuneiform script tablets, medieval and modern manuscripts, rare prints, *Nachlässe* and other rarities. They can be accessed in the special reading room of the university library for research purposes after an advance notification and filling in a corresponding application for use.

Many of these objects are now digitalised and therefore can be accessed online via the DIGISAM (Digitale Giessener Sammlungen, Gießen digital collections).

	Web address	QR code
Collections of the university library	<a href="https://www.uni-giessen.de/ub/ueber-uns/sam">https://www.uni-giessen.de/ub/ueber-uns/sam</a>	
DIGISAM	<a href="http://digisam.ub.uni-giessen.de">http://digisam.ub.uni-giessen.de</a>	

#### 5.4.12 The library as work space

Reading rooms and individual workstations welcome you to read and study in the library. You will also find power and network sockets, WiFi (eduroam) in many places.

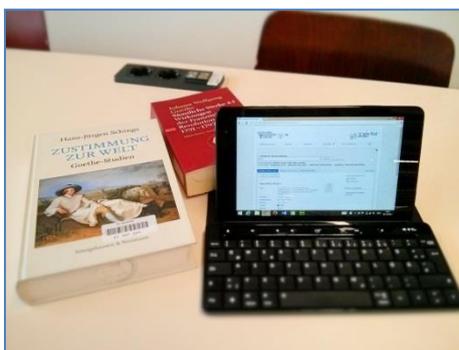


Figure 72: A work station in the reading room with books and tablet PC

In some libraries, you will find special group study rooms for working together. These rooms are very popular so that: First come, first learn. A reservation is not possible.

### 5.5 Reserved books

It may happen that you find a book or other medium in JUSTfind that is a reserved book. Reserved books are generally not located in a library but, for example, in an institute or in the offices of university teachers. If, for example, a teacher purchases a book with public funding, it should be inventoried by the university library and given a shelfmark so that you and others can find it. Now you can contact the teacher to take a look into the book. Reserved books are listed in alphabetic order:

Web address	QR code
<b>Alphabetic list of reserved books</b> <a href="http://www.ub.uni-giessen.de/jlubibv/suche_hap.php">http://www.ub.uni-giessen.de/jlubibv/suche_hap.php</a>	

## 5.6 Interlibrary loans or "becoming a mafia boss"

If you require literature or other media that are not available in the JLU library system, it is best to make use of an interlibrary loan. You can obtain books, CDs or copies of journal articles from other libraries. You will need a special interlibrary loan account to do this.

Mostly in real life, you will come across interlibrary loans during your search: Imagine, you want to know how to become a mafia boss. When entering "Mafiaboss werden" (becoming a mafia boss) in JUSTfind, you will get this result:



The screenshot shows a search interface with the following elements:

- Search input: "Mafiaboss werden"
- Buttons: "Suchen", "Erweiterte Suche"
- Search criteria: "Ihre Suchbegriffe : Einfache Suche: (Alle Felder: Mafiaboss werden)"
- Navigation tabs: "Katalog (OPAC) (0)", "Artikel & mehr (1)", "Weitere Infoquellen", "Suchverlauf"
- Section: "Bücher, E-Books, Zeitschriften und andere Medien"
- Filters: "Gesetzte Filter", "Keine Ergebnisse!"
- Message box: "Für Ihre Suchanfrage - **Mafiaboss werden** - wurde keine Übereinstimmung gefunden. Vorschläge:
  - Haben Sie sich vertippt?
  - Verwenden Sie alternative/englische Suchwörter.
  - Beachten Sie auch den Tab 'Artikel & mehr'.
- Footer: "Das Gesuchte nicht gefunden? [Auskunft](#) / [Fernleihe](#) / [Erwerbungsanschlag](#)"

Figure 73: No result in the Catalogue (OPAC) tab

That means that clearly you will not find literature in Gießen on this topic. However, the link "Fernleihe" (interlibrary loan) gives hope. It will direct you to the HeBIS portal, which searches some national databases for us:

**HeBIS Portal**  
Bücher, Volltexte, Services

Sie sind noch nicht angemeldet

Anmeldung | Suche | **Trefferliste** | Merkliste [0] | Benutzerdaten

Ihre Suchanfrage: Freie Suche Mafiaboß werden

Datenbank : **HeBIS-Verbundkatalog** Treffer : 1

1. Wenn ich groß bin, möchte ich Mafiaboß werden... über die Erziehungsmethoden der sizilianischen Mafia und ihre Gegner  
Deml, Sonja  
Marburg: Tectum-Verl., 2003  
 BESTELLUNG?

Datenbank : **BVB (Bayern)** Treffer : 1

1. Wenn ich groß bin, möchte ich Mafiaboß werden ...  
Deml, Sonja  
Marburg: Tectum-Verl., 2003  
 BESTELLUNG?

Datenbank : **GBV (Norddeutschland, Sachsen-Anhalt, Thüringen)** Treffer : 6

1. Wenn ich groß bin, möchte ich Mafiaboß werden... über die Erziehungsmethoden der sizilianischen Mafia und ihre Gegner  
Deml, Sonja

Treffer

HeBIS-Verbundkatalog	1
HeBIS-Retro: Bücher bis 1986	0
BVB (Bayern)	1
GBV (Norddeutschland, Sachsen-Anhalt, Thüringen)	6
HBZ (Nordrhein-Westfalen)	1
KOBV (Berlin-Brandenburg)	3
SWB (Südwestdeutschland, Sachsen)	1
Staatsbibliothek zu Berlin	0
ZDB - Zeitschriftendatenbank	0
HeBIS-Aufsatzkatalog (Lizenz-Zugang)	0
Deutsche Nationalbibliothek	1
<b>Gesamtergebnis</b>	<b>14</b>

Figure 74: HeBIS search

14 results are listed. The first one is a degree theses by Sonja Deml with the title "Wenn ich groß bin, möchte ich Mafiaboß werden...: über die Erziehungsmethoden der sizilianischen Mafia und ihre Gegner" (When I'm big, I want to be a mafia boss: education methods in the Sicilian Mafia and its opponents), published 2003 by the publisher Tectum-Verlag in Marburg.

We would also have found this title if we had looked in the "Articles & more":

Katalog (OPAC) (0) | **Artikel & mehr (1)** | Weitere Infoquellen

Volltexte und Aufsatznachweise aus Datenbanken aus dem EBSCO Discovery Service

Ergebnis einschränken Treffer 1 - 1 von 1, Sortieren

**Suchfilter**

Full Text  
 Peer Reviewed

Update

**Medientyp**

Books (2)

**Treffer aus**

SOLIS -

1 **Wenn ich groß bin, möchte ich Mafiaboß werden ...: über die Erziehungsmethoden der sizilianischen Mafia und ihre Gegner / When I'm big, I want to be a mafia boss ... : the education methods of the Sicilian mafia and its opponents** von Deml, Sonja  
**Schlagworte:** organisierte Kriminalität; Italien; geschlechtsspezifische Sozialisation; Geschlechtsrolle; Sozialisation; familiäre Sozialisation; Ehre; Erziehung; Sozialarbeit; Jugendarbeit  
Volltextsuche

Das Gesuchte nicht gefunden? Auskunft **Fernleihe / Erwerbungsanschlag**

Figure 75: Becoming a mafia boss with JUSTfind ;-)

Here or after a "full text search", you would have arrived at the results list in the HeBIS portal sooner or later where you can order the title directly:

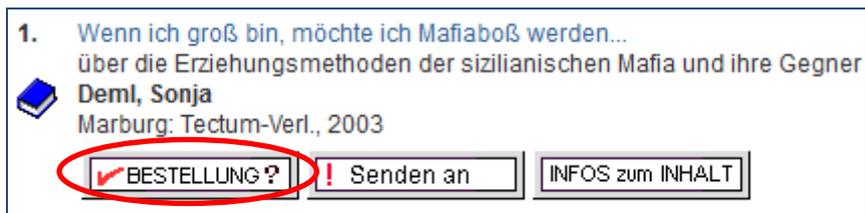


Figure 76: Interlibrary loan via HeBIS - request

In the next step, you are asked if and where you want to order the title via interlibrary loan. You probably do not have an interlibrary loan account, which is now a disadvantage.

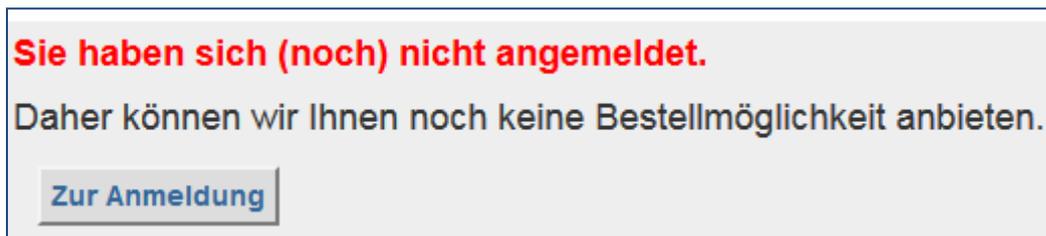


Figure 77: Interlibrary loan via HeBIS - login

However, an interlibrary loan account can be created at the desk in the university library or in the library branch in the Chemikum during till opening hours. An interlibrary loan usually costs 1.50 EUR per title, which is considerably less than buying a book. Alternatively, you can also buy an interlibrary loan voucher without having to open an account.

Once you have successfully created an interlibrary loan account, you can (finally!) log in and order the title:



Figure 78: Interlibrary loan via HeBIS - ordering

In the following dialogue box, you may have to add some more information before sending the order with your password:

**Bestellung abschicken:**

Bemerkungen

Lok. Bestellnr.:  (nur für Bestellungen durch Bibliotheken)

**Hinweis zu erhöhten Kosten:** Im Normalfall bleibt es bei der Gebühr von 1,50 Euro. Sollten im Ausnahmefall (mehr als 20 Kopien, Wertversicherung etc.) zusätzlich zur Fernleihgebühr Kosten bis zu 8,- Euro entstehen, wird ihre Bestellung ohne Rückfrage erledigt.

**Kosten**

Ich akzeptiere Mehrkosten bis maximal 8,- EUR zusätzlich zur Fernleihgebühr

Ich wünsche keine Mehrkosten

Mit dem Absenden der Bestellung wird eine erfolgsunabhängige Auslagenpauschale von **1,50 Euro** fällig, die sofort von ihrem Fernleihkonto abgebucht wird. Bitte geben Sie an ob Sie bereit sind, eventuell entstehende Mehrkosten zu tragen.

Passwort

Figure 79: Interlibrary loan via HeBIS - sending the order

After the data were successfully transmitted, you will get a confirmation containing the order number:

**Die Fernleihbestellung wurde erfolgreich abgeschickt**

**Die Bestellnummer lautet: A025380966**

Bei Fragen zur Benutzung wenden Sie sich bitte an die Infotheke Ihrer Bibliothek oder per Mail an die [HeBIS-Auskunft](#).

Figure 80: Interlibrary loan via HeBIS - order confirmation with order number

Now you wait: The items usually arrive within three weeks; you will be notified by email. There is also a corresponding note in your loan account.



Figure 81: Book ordered via interlibrary loan

By the way, "Wenn ich gross bin, möchte ich Mafiaboss werden" (When I'm big, I want to be a mafia boss) was delivered after exactly 12 days. The item must be returned after another four weeks, interlibrary loans usually cannot be renewed.

Articles can also be ordered as interlibrary loans, the order process is very similar. These articles are scanned in a library holding the associated journal. After electronic transfer to our library system, they are printed for you in Gießen to be picked up.

You can get additional information about interlibrary loans at the information desks or with the following link:

	Web address	QR code
<b>Information on interlibrary loans</b>	<a href="https://www.uni-giessen.de/ub/ausleihe-fernleihe/fernleihe">https://www.uni-giessen.de/ub/ausleihe-fernleihe/fernleihe</a>	

## 5.7 Document delivery

Ordering articles that are not available in Gießen with an interlibrary loan certainly is the most cost-effective option.

However, if you need an item faster, you can also use commercial document delivery services instead of interlibrary loans. They deliver ordered books and articles directly to your home. However, you will often have to pay considerably more. For example, the delivery service Subito is often used. They deliver within 24 hours if this option is selected; otherwise delivery is within 72 hours.

You can get further information about document delivery services at our information desks. You can find an overview of service providers and the link to Subito here:

	Web address	QR code
<b>Overview of document delivery services</b>	<a href="http://www.HeBIS.de/de/1fernleihe/dokumentlieferdienste/dokumentlieferdienste.php">http://www.HeBIS.de/de/1fernleihe/dokumentlieferdienste/dokumentlieferdienste.php</a>	
<b>Document delivery service Subito</b>	<a href="http://www.subito-doc.de/">http://www.subito-doc.de/</a>	

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## 6. Evaluating and recording information

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After acquiring the item it must be evaluated and its content recorded. The issue of relevance and quality is discussed in this ➔ chapter 6.1, effective recording of the contents using reading techniques is explained in ➔ chapter 6.2.

### 6.1 Relevance and quality

Does the literature you found really fit with your topic and are your knowledge requirements met (➔ chapter 3)? At first, take a look at the table of contents, the abstract, the introduction and the conclusions.

If you can give a positive answer to the question about relevance, you can begin with the actual assessment of quality. If not, you should do your search again. For example, you could take a closer look at the reference lists of the literature you found.

#### 6.1.1 Criteria

We have already discussed characteristics of scientific literature in ➔ chapter 2.1 - if you do not remember them exactly, please take another look. Literature you find with JUSTfind (➔ chapter 4.2) or with the expert search (➔ chapter 4.3) should meet these quality criteria in most cases.

##### 6.1.1.1 Internet sources

However, if you rely mainly on internet sources (➔ chapter 4.1), you must assess their quality in a bit more detail:

- Are the authors reliable and clearly identifiable? Do they have expert knowledge in this field?
- To which institutions are they affiliated and can certain interest be deducted from this?
- Is a clear distinction made between facts, interpretations and opinions and is objectivity maintained?
- Where are the documents saved and is their permanent availability ensured?

However, internet sources like blogs or Wikis can be a useful source, especially because they often are more up to date than printed journals or books. But you must be aware of their limitations and must never rely on such documents only. The most famous example for this certainly is Wikipedia, which is not considered to be citable by many teachers (➔ chapter 4.1.3).

##### 6.1.1.2 Peer review and recensions

Articles from scientific journals, *Sammelbände* or monographs usually have been subjected to a quality assessment: the **peer review**. This is an assessment process submitted articles undergo. This is usually done in a double-blind process, where authors as well as the reviewer remain anonymous to ensure neutrality.

**Recensions** are more commonly used for monographs; they are discussions where the work is described, discussed, analysed and critically assessed. It is sometimes worthwhile to look for them, especially when a work is the centre of your work. You will definitely also find reviews and recensions of popular books on the internet pages of book stores: In November 2014, you could already find 176 recensions, some of them from established scientists, on Manfred Spitzer's book "Digitale Demenz"

(digital dementia). The great advantage of these recensions is that they, in turn, can be reviewed by readers.



Figure 82: Example for a recension on Amazon

A place for scientific recensions, for example, is IBR-Online by DE GRUYTER - do not forget the VPN connection!

Web address	QR code
<b>IBR-Online (DE GRUYTER)</b> <a href="http://www.degruyter.com/databasecontent?dbid=ibr&amp;dbsource=%2Fdb%2Fibr">http://www.degruyter.com/databasecontent?dbid=ibr&amp;dbsource=%2Fdb%2Fibr</a>	

### 6.1.2 Impact factor

The more influential a journal, the higher the probability that an article found there also is of high quality. The so-called *impact factor* (IF) indicates the influence of a specialist scientific journal by determining how often the articles of that journal were cited in the past - mostly in the last two years. However, we will show how to determine the impact of an *individual article* in the next chapter. The impact factor makes a statement about the quality of a journal. A good place to go to is the database "Journal Citation Reports" (JCR), which you can use as JLU member; the link is below. There are two editions of JCR, one for medicine, technology and natural sciences (Science Edition) and one for social sciences (Social Sciences Edition); you must choose *one* of them. Then you determine, which journals you want to look at: Journals from a certain subject or country, a certain journal or all of them:

<b>Select a JCR edition and year:</b>	<b>Select an option:</b>
<input type="radio"/> JCR Science Edition 2013 <input checked="" type="radio"/> JCR Social Sciences Edition 2013	<input checked="" type="radio"/> View a group of journals by Subject Category <input type="radio"/> Search for a specific journal <input type="radio"/> View all journals

Figure 83: Selection of journals in Journal Citation Reports (JCR)

For example, if you have all scientific journals in the JCR Science Edition listed and sort them based on the impact factor, you will find the journal "Nature" in 5th place with an IF of 42.351. That means that an article in Nature is cited more than 42 times on average. However, titles in English in the subjects natural sciences, medicine and technology have an advantage with the IF.

ISI Web of Knowledge<sup>SM</sup>

Journal Citation Reports<sup>®</sup>

WELCOME ? HELP 2013 JCR Science Edition

Journal Summary List [Journal Title Changes](#)

Journals from: All Journals

Sorted by: **Impact Factor** SORT AGAIN

Journals 1 - 20 (of 8539) Page 1 of 427

MARK ALL UPDATE MARKED LIST

Ranking is based on your journal and sort selections.

Mark	Rank	Abbreviated Journal Title <i>(linked to journal information)</i>	ISSN	JCR Data <sup>i</sup>						Eigenfactor <sup>®</sup> Metrics <sup>j</sup>	
				Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	Articles	Cited Half-life	Eigenfactor <sup>®</sup> Score	Article Influence <sup>®</sup> Score
<input type="checkbox"/>	1	<a href="#">CA-CANCER J CLIN</a>	0007-9235	16130	162.500	107.740	27.760	25	3.1	0.06030	34.798
<input type="checkbox"/>	2	<a href="#">NEW ENGL J MED</a>	0028-4793	257469	54.420	52.426	14.747	348	8.2	0.65797	22.412
<input type="checkbox"/>	3	<a href="#">CHEM REV</a>	0009-2665	124463	45.661	48.832	7.101	207	8.1	0.21741	14.261
<input type="checkbox"/>	4	<a href="#">REV MOD PHYS</a>	0034-6861	37647	42.860	52.577	8.333	45	>10.0	0.12864	32.037
<input type="checkbox"/>	5	<a href="#">NATURE</a>	0028-0836	590314	42.351	40.783	8.457	857	9.8	1.60305	22.184
<input type="checkbox"/>	6	<a href="#">ANNU REV IMMUNOL</a>	0732-0583	16653	41.393	46.174	8.823	34	8.7	0.04785	33.727

Figure 84: JCR results list

	<b>Web address</b>	<b>QR code</b>
<b>Journal Citation Reports (JCR)</b>	<a href="http://admin-apps.webofknowledge.com/JCR/JCR">http://admin-apps.webofknowledge.com/JCR/JCR</a>	

### 6.1.3 Using citation databases

Citation databases also evaluate the reference lists of publications. Using these databases, you can accelerate the snowball method (chapter 3.2.3) considerably and especially determine in which later publications an article or book is cited (Figure 85 and Figure 86).

**31** Times Cited  
 25 Cited References  
[View Related Records](#)

 [View Citation Map](#)

 [Create Citation Alert](#)

(data from Web of Science™ Core Collection)

Figure 85: Section of a citation database (Web of Science)

In addition to the direct search in Web of Science (➔ chapter 4.3.2), this can also be done very comfortably on Google Scholar (➔ chapter 4.1.1). Later articles and books, if applicable, can be tracked easily with this method.

**Users of the world, unite! The challenges and opportunities of Social Media**  
[AM Kaplan](#), [M Haenlein](#) - *Business horizons*, 2010 - Elsevier

Abstract The concept of **Social Media** is top of the agenda for many business executives today. Decision makers, as well as consultants, try to identify ways in which firms can make profitable use of applications such as Wikipedia, YouTube, Facebook, Second Life, and ...

Zitiert von: 4716 Ähnliche Artikel Alle 37 Versionen Web of Science: 626 Zitieren Speichern

Figure 86: Results in Google Scholar with reference to later articles

	Web address	QR code
Web of Science	<a href="http://thomsonreuters.com/thomson-reuters-web-of-science/">http://thomsonreuters.com/thomson-reuters-web-of-science/</a>	
Google Scholar	<a href="http://scholar.google.de/">http://scholar.google.de/</a>	

## 6.2 Reading techniques

Different purposes require different reading techniques and strategies. This book does not want to explain these techniques in detail but wants to point them out in particular. Because the best literature search is little useful, when the following steps are amateurish.

People read, e.g.

- to learn,
- to discuss
- to familiarise themselves with a subject,
- because they want to understand something,
- to write,
- to present,

- to enjoy,
- ...

(vgl. Kruse 2015, S. 21ff)

For almost all reading purposes (except for enjoyment), you must be able to, for example, detect the **structure** on which the text or topic is based and to break it down reasonably afterwards. The arrangement of a book or article can help you to understand this structure.

When you revise for an exam, **memorising** will have a special importance. There are numerous aids and techniques as well as specialist, worthwhile literature on this topic and reading them at the start of a university course is recommended. The book "Viel Stoff schnell gelernt"(Lehner 2015) (A lot of stuff learned quickly), for example, shows how you can optimise your revision for exams. "Lernen zu lernen" (Metzig and Schuster 2006) (Learning to learn) can be very useful for this.

Reading for discussions must predominately help to compile **arguments and proofs**, which help you to strengthen your point of view. To find proofs, for example, all you have to do is find the right passages in a text and, if necessary, understand the line of reasoning.

If you want to familiarise yourself with a topic, a special look at literature providing an **overview** like handbooks, textbooks, encyclopaedias is worthwhile. The quick review of tables of contents, abstracts and introductions is also done before reading thoroughly and systematically. Sometimes, texts can be scanned and searched for useful sections.

In order to be able to use text sections found later in a written thesis, it is worthwhile to **document** or write them down from the beginning. Literature management programmes like Citavi (☞ chapter 7.3) make this particularly easy. It is also worthwhile to prepare an **excerpt**, i.e. write down or copy, of these text passages.

If **understanding** is of special importance, structuring aids like mind maps and maps of subjects can be of help. Here, quality is more important than quantity and sometimes you have to take extra time to think about it.

Different reading techniques are described very well in conjunction with their respective purpose in the book "Fachtexte lesen, verstehen, wiedergeben" (Lange 2013) (Reading, understanding, reciting specialist texts). Distinctions are made between:

- Scanning, reading for orientation,
- searching, scanning but reading specifically.
- reading thoroughly,
- reading selectively,
- reading to analyse and
- complex reading methods.

The method "PQ4R", for example, belongs to the latter, which helps with the entire process of text processing and systematically supports understanding and memorising. The individual letters stand for **P**review, **Q**uestion, **R**ead, **R**eflect, **R**ecite and **R**evise:

1. Preview: Get an overview about the text,
2. Question: Formulate your own questions you want to answer with help of the text,

3. Read: Read and look for answers,
4. Reflect: Think about what you read and, if possible, make a connection with your previous knowledge and the topic,
5. Recite: Recite what you read and answer the questions (in writing),
6. Review: Summarise the text, make conclusions and memorise the most important aspects.

Finally, you can make a further connection to scientific writing but this is beyond the scope of this book on literature search. The writing centre ZfbK at JLU is a good point of contact for this.

Further information	Web address	QR code
Writing centre at the ZfbK	<a href="http://www.uni-giessen.de/cms/fbz/zentren/zfbk/afk/schreibzentrum">http://www.uni-giessen.de/cms/fbz/zentren/zfbk/afk/schreibzentrum</a>	

## 7. Processing information further

Bibliographic information, citations, summaries, excerpts, existing texts, etc.: Collect thoroughly from the beginning. You will need your information for the reference list (➔ chapter 7.1) at the latest. To avoid suspicions of plagiarism, always cite correctly (➔ chapter 7.2). Use a literature management programme like Citavi as early as possible to make your search and documentation easier during your entire university course and later (➔ chapter 7.3).

### 7.1 The reference list

Get used to collecting complete bibliographic information because you will need them at latest for your reference list. There are several "dialects" here that are also dependent on the subject culture (➔ chapter 2.7). If in doubt, find out about the specifications of your subjects in advance. For example, the subject 03 (social and cultural sciences) at JLU developed and concluded a "Text zur Einführung in das wissenschaftliche Arbeiten" (Text on the introduction to scientific methods) in 2005. Chapter 5.5 of this document contains information for a reference list.

If you use a literature management programme like Citavi (➔ chapter 7.3), you can leave the correct citing and preparation of a correct reference list to the software - uniformity guaranteed. The following Figure shows the standard citation style of Citavi with an example, which you can use as a template for your own writing.

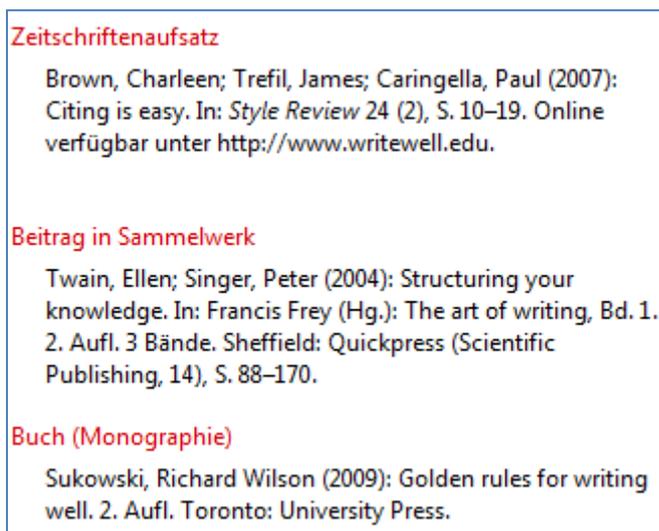


Figure 87: Basic citation style in Citavi

Further information	Web address	QR code
Specifications FB03	<a href="http://www.unigiesen.de/cms/fbz/fb03/institute/ifezw/PraktikumNeu/older_content/wissarbeit/at_download/file">http://www.unigiesen.de/cms/fbz/fb03/institute/ifezw/PraktikumNeu/older_content/wissarbeit/at_download/file</a>	

### 7.2 Citing correctly, avoiding plagiarism

Citing correctly is important. Otherwise you could be easily accused of plagiarism instead of preparing your own scientific paper. JLU Gießen has prepared a brochure "Gutes Wissenschaftliches Arbeiten statt Plagiate und Täuschen" (Präsident der Justus-Liebig-Universität Gießen 2014) (Good

scientific methods instead of plagiarism and cheating), which you should consider. You should take the information seriously as your paper might be scanned with an anti-plagiarism software.

The formal citation rules and styles differ depending on the subject and teacher; you should get information about this in advance. However, uniformity of the style within the paper always applies. In chapter 7.1, you saw what a reference list can look like. In the text, you only need to reference it with the name of the author(s) and the year of publication. Again: If you record your literature with Citavi and also insert the references with Citavi, there is almost nothing that can go wrong. Every time you insert a reference in the text or a footnote, the corresponding reference is also inserted in the reference list:

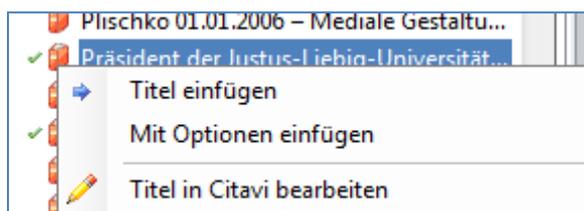


Figure 88: Inserting reference and title with Citavi plugin

Direct quotations and indirect citations must be distinguished. The origin of images or graphics must also be referenced if they are not your own.

Further information	Web address	QR code
JLU brochure on avoiding plagiarism	<a href="https://www.uni-giessen.de/cms/studium/lehre/plagiate/infobroschuere">https://www.uni-giessen.de/cms/studium/lehre/plagiate/infobroschuere</a>	

### 7.3 Literature management with Citavi (and others)

The use of literature management programmes has been recommended often in this book. In case of Citavi, you can enter references into the software with one click e.g. from JUSTfind without having to type the information. With the programme, you can save full text versions directly as PDF. The convenient way of inserting citations and the flexible preparation of reference lists was already discussed.

JLU Gießen has acquired a campus licence for Citavi so that all JLU members, i.e. students and staff, can use it. Citavi workshops and Citavi consultations are held regularly. Of course, there are a number of other programmes, e.g. Endnote, Mendeley, Zotero and others, which you can use instead - it is just important that you *do*.

The following links direct you to the Citavi homepage and the Citavi YouTube channel, where you can find out more about the programme. You can also find further information on our internet pages, e.g. download, installation, manuals and additional support.

Further information	Web address	QR code
---------------------	-------------	---------

<b>Information about Citavi on the university library webpage</b>	<a href="http://www.uni-giessen.de/ub/lernort-ausstattung/literaturverwaltung/citavi/index.html">http://www.uni-giessen.de/ub/lernort-ausstattung/literaturverwaltung/citavi/index.html</a>	
<b>Citavi homepage (German)</b>	<a href="http://www.citavi.de/de/">http://www.citavi.de/de/</a>	
<b>Citavi channel on YouTube (tutorials and more)</b>	<a href="https://www.youtube.com/user/CitaviTeam">https://www.youtube.com/user/CitaviTeam</a>	
<b>Overview of literature management</b>	<a href="https://www.uni-giessen.de/ub/lernort-ausstattung/literaturverwaltung">https://www.uni-giessen.de/ub/lernort-ausstattung/literaturverwaltung</a>	

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## 8. Conclusions

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The goal of this book was to give you an introduction to the literature search that is appropriate for science. The book should also accompany you during your university course as guidebook and reference book. Already on the first page, you found out that using the search portal JUSTfind with its two tabs "Catalogue (OPAC)" and "Articles & more" means that half the job is already done. Other special tools and portals as well as the skilful use of Google, Wikipedia and others was also introduced.

The central theme of the book was developed as follows:

The starting point were initial thoughts mainly concerning the scientific requirements of the literature search, finding the location of corresponding media as well as modern search options.

The chapter on preparing the search listed possibilities for a professional approach to the topical search while proceeding systematically and without losing sight of one's own schedule.

The chapter on doing the search started with the layperson search before placing JUSTfind in the focus of the search. The expert search demonstrated additional, advanced possibilities.

Acquiring literature was often described already in the search chapter for electronic resources but the separate chapter on acquisition showed the many ways of acquiring literature: from buying to acquisition suggestions, library services to interlibrary loan and document delivery.

This was followed by the evaluation of found items with respect to quality and relevance as well as a few tips on efficient reading and further processing.

Please recommend this book if it was of help to you. If you have discovered errors, if information is missing or if you have other comments, please let us know in a brief email. Your suggestions could be included already in a new edition of this book.

You can also use the specific forum on literature search for further discussion or for questions.

	Web address	QR code
<b>Discussion forum for literature search</b>	<a href="http://ilias.uni-giessen.de/ilias/goto.php?target=frm_49303&amp;client_id=JLUG">http://ilias.uni-giessen.de/ilias/goto.php?target=frm_49303&amp;client_id=JLUG</a>	

## 9. Lists

### 9.1 Glossary

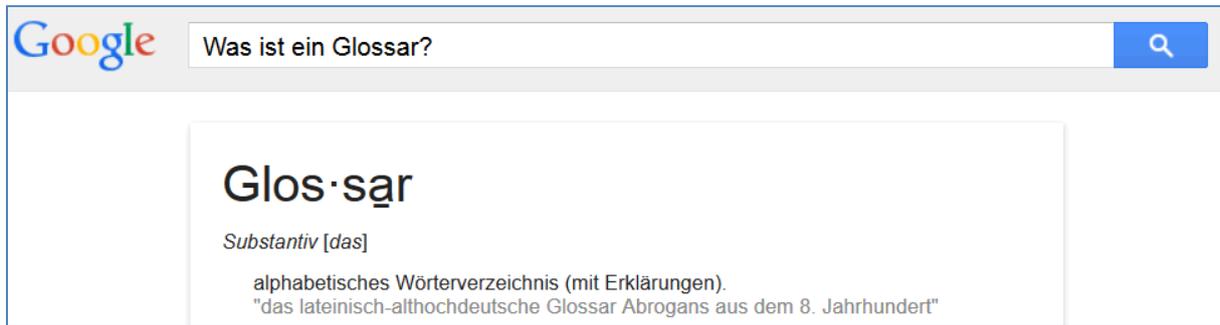


Figure 89: Using Google as glossary

A book like this often had a glossary in the past to define the most important terms. This is not done here because it has become increasingly easy to find definitions. If, for example, you include the search word in the question "What is...?" in Google, you will get a results list but also directly an explanation.

Furthermore, we would like to refer to the online glossary of this book under <http://www.informationskompetenz.de/>:

	Web address	QR code
<b>Glossary Information competence</b>	<a href="http://www.informationskompetenz.de/glossar/">http://www.informationskompetenz.de/glossar/</a>	

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Ball, Rafael (2013): Was von Bibliotheken wirklich bleibt. Das Ende eines Monopols; ein Lesebuch. Wiesbaden: Dinges & Frick ([BIT online : Innovativ, 45]).

Berliner Kurier (Hg.) (2013): Die skurrilsten Wikipedia-Fehler. Unechte Kriege, falsche Namen. Online verfügbar unter <http://www.berliner-kurier.de/panorama/unechte-kriege--falsche-namen-die-skurrilsten-wikipedia-fehler-,7169224,23095540.html>, zuletzt aktualisiert am Sonntag, 02.06.2013, zuletzt geprüft am 03.03.2015.

Franke, Fabian (2014): Schlüsselkompetenzen. Literatur recherchieren in Bibliotheken und Internet. 2., aktualisierte und erw. Aufl. Stuttgart [u.a.]: Metzler.

Kremer, Bruno P. (2014): Vom Referat bis zur Examensarbeit. Naturwissenschaftliche Texte perfekt verfassen und gestalten. 4., überarb. u. erw. Aufl. 2014. Berlin, Heidelberg: Imprint: Springer Spektrum (SpringerLink : Bücher).

Kruse, Otto (2015): Lesen und Schreiben. Der richtige Umgang mit Texten im Studium. 2., überarb. Aufl. Konstanz: UTB (Studieren, aber richtig, 3355 : Schlüsselkompetenzen).

Lange, Ulrike (2013): Fachtexte. Lesen, verstehen, wiedergeben. Paderborn: Schöningh (UTB, 4002 : Schlüsselkompetenzen).

Lehner, Martin (2015): Viel Stoff - schnell gelernt. Prüfungen optimal vorbereiten. 1. Aufl. Bern, Bern: UTB; Haupt Verlag (UTB, 4296).

Lemke, Michael (2014): Sind wir wirklich reif für E-only? Nutzerbedarf und Leseverhalten als Kriterien einer monographischen Erwerbungspolitik an wissenschaftlichen Bibliotheken. In: *Perspektive Bibliothek* 3 (2), S. 7–43. DOI: 10.11588/pb.2014.2.16805.

Meierwisch, Ralf (Hg.) (2008): FAQ - Was ist eine Monographie? Wissenschaftliches-Arbeiten.org. Online verfügbar unter <http://www.wissenschaftliches-arbeiten.org/faq/monographie.html>, zuletzt geprüft am 04.08.2014.

Merk, Judith; Stephan, Peer; Wittich, Anke (2010): Fahrplan zur Facharbeit. Ideen finden, erfolgreich recherchieren, richtig zitieren. Unter Mitarbeit von 6. Semester Informationsmanagement. Fachhochschule Hannover. Hannover. Online verfügbar unter urn:nbn:de:bsz:960-opus-3258, zuletzt geprüft am 07.08.2014.

Metzig, Werner; Schuster, Martin (2006): Lernen zu lernen. Lernstrategien wirkungsvoll einsetzen ; mit 3 Tabellen. 7., verb. Aufl. Berlin [u.a.]: Springer.

Müller, Ragnar; Plieninger, Jürgen; Rapp, Christian (2013): Recherche 2.0. Finden und Weiterverarbeiten in Studium und Beruf. Wiesbaden: Imprint: Springer VS (SpringerLink : Bücher).

Präsident der Justus-Liebig-Universität Gießen (Hg.) (2014): Gutes Wissenschaftliches Arbeiten statt Plagiate und Täuschung. 2. Aufl. (Informationen zu Studium und Lehre), zuletzt geprüft am 25.03.2015.

presstext.redaktion (2012): Polit-Einträge bei Wikipedia nicht neutral. Qualität in englischer Version nimmt mit steigender Zahl der Einträge zu. Unter Mitarbeit von Markus Keßler. Online verfügbar unter <http://www.presstext.com/news/20120208012>, zuletzt aktualisiert am Mi, 08.02.2012, zuletzt geprüft am 03.03.2015.

Stickel-Wolf, Christine; Wolf, Joachim (2013): Wissenschaftliches Arbeiten Und Lerntechniken. Erfolgreich Studieren - Gewusst Wie!: Gabler.

Ströhl, Andreas (2014): Medientheorien kompakt. 1. Aufl., neue Ausg. Konstanz, Konstanz: UTB; UVK (UTB, 4123).

Universitätsbibliothek Freiburg (2008): Regionale Datenbank- Information für die staatlichen Hochschulen Landesbibliotheken Baden-Württemberg. Freiburg. Online verfügbar unter [http://www.ub.uni-freiburg.de/fileadmin/ub/pdf/infos/ReDI\\_BW.pdf](http://www.ub.uni-freiburg.de/fileadmin/ub/pdf/infos/ReDI_BW.pdf), zuletzt aktualisiert am November 2008, zuletzt geprüft am 11.03.2015.

Wytrzens, Hans Karl (2014): Wissenschaftliches Arbeiten. Eine Einführung. 4. Aufl., rev. Ausg. Wien: Facultas.



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