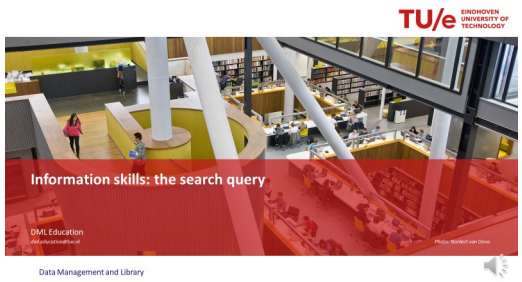
Script “Information skills: the search query”

	Information Skills: the search query
Searching for scholarly literature Literature research is an essential part of scientific research 1. Start of your project: overview of the available literature 2. Later in your project: find newer literature 2 Data Management and Library TU/e	Literature research is a crucial part of scientific research. At the start of your project, you would like to have an overview of the available literature on your topic. During your project you want to stay up to date with the latest literature.
Query Grouping vehicles into platoons → increasing the capacity of roads 3 Data Management and Library TU/e	To find literature on your topic you need a search query. In this video you will learn how to compose a search query that you can use in scholarly databases. Let’s start with an example: Grouping intelligent vehicles into platoons increases the capacity of roads. Because those vehicles communicate with each other, they can all accelerate and brake at the same time. Therefore, the distance between the vehicles can decrease. Suppose you wish to find information about vehicle grouping. Then decide which terms you can choose that describe your project completely. This could be your main topic and a few subtopics or subtopics that, together, describe your project .
Query Grouping vehicles into platoons → increasing the capacity of roads 4 Data Management and Library TU/e	In this example the subtopics are “vehicles”

Query Grouping vehicles into platoons → increasing the capacity of roads 5 Data Management and Library TU/e	and “platoons”
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* * means zero or more characters 6 Data Management and Library TU/e	Let’s start with “vehicles”. One of the search terms that I chose is the obvious one “vehicle”. I put an asterisk behind it. This is an operator that means that there could be zero or more characters behind “vehicle”. A scholarly database in which I enter this term including the asterisk, will return search results including not only “vehicle”, but also “vehicles” and any other words there might be which start with vehicle.
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* car cars motorcar* automobile* truck* bus* Alternative search terms: e.g. synonyms, different spellings, singular/plural, abbreviations, similar and related terms, opposites and translations 7 Data Management and Library TU/e	Because not every author mentions his topics in the same way, you must also use alternative search terms; other words that describe the same concept. These could be synonyms, different spellings, singular or plural, abbreviations, similar and related terms, opposites or translations. As you can see, I used the asterisk again behind most of the alternative search terms, except car. The reason is that there are too many words that start with "car” and have nothing to do with vehicles. These could result in unwanted search results. My solution is to use both “car” and “cars” as a search term.
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus* OR  8 Data Management and Library TU/e	To combine words within one subtopic I use the Boolean operator OR. At least one of the search terms for this subtopic will appear in each of my search results.

Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus* platoon* formation* group* 9 Data Management and Library TU/e	Now the second subtopic “platoon”. You can see the alternative search terms that I found and that I used the asterisk again.
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus* platoon* OR formation* OR group* 10 Data Management and Library TU/e	I combine them with “OR”, so that my search results contain at least one of the search terms for this subtopic.
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus* AND platoon* OR formation* OR group* AND  11 Data Management and Library TU/e	Because I want search results with at least one search term for the vehicle-subtopic and one search term for the platoon subtopic, I must use AND in between the subtopics. AND is used to make certain that two search terms are both in the search results, or as in this case, at least one word for each of the subtopics.
Query Grouping vehicles into platoons → increasing the capacity of roads vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus* AND platoon* OR formation* OR group* AND is evaluated first and then OR 12 Data Management and Library TU/e	My search query is not complete yet, because AND takes precedence over OR. So, if this were my query, a database would first evaluate “bus*” and “platoon*” and then the rest of the query. This would not yield the desired results.

Query Grouping vehicles into platoons → increasing the capacity of roads (vehicle* OR car OR cars OR motorcar* OR automobile* OR truck* OR bus*) AND (platoon* OR formation* OR group*) Parentheses 13 Data Management and Library TU/e	Parentheses can be used to group search terms with their correct operator, just like in arithmetic. To have the query correctly evaluated, you must use parentheses.
Searching for scholarly literature Literature research is an essential part of scientific research 1. Start of your project: overview of the available literature 2. Later in your project: find newer literature 14 Data Management and Library TU/e	In this video you have learned how to compose a search query that you can use in scholarly databases. Literature research is an essential part of scientific research, because you would like to have an overview of the literature on your topic at the start of your project and stay up to date with the latest literature during your project.
More information on this topic Canvas Module: **Searching** dml.education@tue.nl 15 Data Management and Library TU/e	This video is an introduction to writing a search query. Not all aspects are covered in this video. More information on composing search queries can be found in the Canvas module “Searching”. If you have any questions, you can mail us at dml.education@tue.nl. Thank you for watching this video.