

Nordrhein-Westfalen plan it on DTK25. All states plan cyclical DTK updating, mostly in three-year cycles. There are three different ways to update DLM50 and derived DTK50 and DTK100. Eleven countries plan to produce DLM50 from the Basic DLM automatically using model generalisation every six months. DTK50 is to be produced every three years from DLM50 by processes of automatic cartographic generalisation and interactive processing. Therefore, DLM50 and DTK50 have partially different geometry. DTK100 is to be produced from DLM50 by processes of model and cartographic generalisation and interactive processing in three-year cycles. DLM100 is produced in the middle of the process. Mecklenburg-Vorpommern, Niedersachsen, Bremen and Sachsen treat DLM50 and DTK50 as geometrically identical. Important object types of DLM and DTK are going to be updated interactively after updating the Basic DLM. Cyclical updating of DLM50 and DTK50 is going to be carried out concurrently with the cyclical updating of the Basic DLM. Updating of DTK100 is going to be executed immediately after updating the DTK50. Bayern plans to complete DTK50 and DTK100 by 2012, and to update both maps once a year since 2013. Digital Relief Models (Digitales Geländemodell – DGM) have been produced in Germany since approximately 1980. The models were produced by digitising isohypses from DGK5 and TK25. It was not until the middle of the 1990s that laser scanning was introduced in their production. The smallest distance in the DGM network was reduced from 10 m or 25 m to 5 m, then 2 m, then to 1 m, and height accuracy was increased to several decimeters. In 2010, a decision was made in Germany to require production of 3D building models, with the first level of detail (LoD1) in 2013, and subsequently with the second level of detail (LoD2).

**Source:**

E. Jäger: Wege zur Aktualisierung von ATKIS. zfv 2011, 6, 352-359.

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# Cartographers in the SCOPUS database

**Scopus, a commercial database of the Elsevier company is the largest bibliographic and citation base in the world with tools for browsing, analyzing and visualizing data.**

At the end of 2011, it included 18 500 journals, out of which 1800 with open access, 425 company publications, 325 book series, 250 proceedings, 375 million scientific web pages and 24.8 million patent records. Scopus was launched in 2004, it contains data from 1966 and citations have been recorded since 1996. Scopus is available to the Croatian academic community courtesy of the Ministry of Science, Education and Sport. Access is regulated by IP address, so a username and password are not necessary (<http://www.scopus.com/home.url>).

We are not going to note all possibilities of browsing the database, but we are going to discuss browsing by authors. In order to obtain papers by a certain author, one needs to use Authors search and write his or her last name and first name or initials in corresponding fields. A special field is reserved for the institution the author works in. Some last and first names are going to yield several dozens of authors and initials might yield several hundred authors. In order to facilitate browsing, Scopus yields last and first names, sometimes only initials, scientific fields and institutions they work in. At the same time, the author ID unifies all name forms the author used into a single virtual identity. However, additional effort is sometimes required to find all virtual identities of a particular author. For example, one would like to find papers by a cartographer with the last name Du and the first name Qingyun. The base contains three virtual identities with those last and first names. One of them is not a cartographer. Out of the remaining two, one has an institution (Wuhan University), while the other does not. A review of their papers reveals they both have papers related to cartography, which leads to the conclusion they are the same person. Such a conclusion is supported by the fact that the first virtual identity was attributed with 65 papers, none of which are from 2011. The other virtual identity was attributed with seven papers from 2011 and three from 2010. In addition, an additional web search confirms the 2011 papers author also has the Wuhan University address, i.e. both virtual identities belong to the same author.

Scopus also enables a citation overview of individual or all papers by a certain author. In order to obtain data about

zemlje planiraju cikličko osuvremenjivanje DTK-a u pravilu u trogodišnjim ciklusima. U osuvremenjivanju DLM50 i iz njega izvedenih DTK50 i DTK100 postoje tri različita načina. Jednako zemalja planira izradu DLM50 iz Osnovnog DLM-a automatski pomoću modelne generalizacije svakih pola godine. DTK50 izrađivao bi se svake tri godine iz DLM50 procesima automatske kartografske generalizacije i interaktivnom doradom. Stoga DLM50 i DTK50 imaju djelomično različitu geometriju. DTK100 izrađivao bi se iz DLM50 procesima modelne i kartografske generalizacije i interaktivnom doradom u trogodišnjim ciklusima. Pritom kao međuproizvod nastaje DLM100. Mecklenburg -Vorpommern, Niedersachsen, Bremen i Sachsen tretiraju DLM50 i DTK50 kao geometrijski identične. Važne objektivne vrste i DLM-a i DTK-a osuvremenjivat će se interaktivno izravno nakon osuvremenjivanja Osnovnog DLM-a. Cikličko osuvremenjivanje DLM50 i DTK50 izvodit će se paralelno s cikličkim osuvremenjivanjem Osnovnog DLM-a. Osuvremenjivanje DTK100 izvodit će se izravno nakon osuvremenjivanja DTK50. Bayern planira dovršetak DTK50 i DTK100 do 2012, a od 2013. osuvremenjivanje obje karte jednom godišnje. Digitalni modeli terena (Digitales Geländemodell – DGM) izrađuju se u Njemačkoj od približno 1980. godine. Ti su modeli nastajali digitalizacijom izohipsa s DGK5 i TK25. Tek od sredine 1990-ih primjenjuje se u njihovoj izradi lasersko skeniranje. Pritom je najmanja udaljenost u mreži DGM-a s 10 m, odnosno 25 m smanjena na 5 m, 2 m pa i na 1 m, a točnost visina povećana na nekoliko decimetara. Godine 2010. donesena je u Njemačkoj odluka o potrebi izrade 3D modela zgrada i to do 2013. s tzv. prvim stupnjem detaljnosti (Level of Detail – LoD1), a srednjoročno i s drugim stupnjem detaljnosti (LoD2).

#### Izvor:

E. Jäger: Wege zur Aktualisierung von ATKIS. zfv 2011, 6, 352-359.

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# Kartografi U bazi podataka SCOPUS

**Scopus, komercijalna baza podataka tvrtke Elsevier, najveća je bibliografska i citatna baza na svijetu s alatima za pretraživanje, analiziranje i vizualizaciju dobivenih podataka.**

Uključuje, krajem 2011, 18 500 časopisa od kojih 1800 s otvorenim pristupom, 425 publikacija tvrtki, 325 serija knjiga, 250 zbornika radova, 375 milijuna znanstvenih web-stranica i 24,8 milijuna patentnih zapisa. Scopus je pokrenut 2004, sadrži podatke od 1966, a citati se u bazi vode od 1996. Zahvaljujući Ministarstvu znanosti, obrazovanja i sporta (MZOS) Scopus je dostupan hrvatskoj akademskoj zajednici, a pristup je reguliran IP adresama pa nije potrebno korisničko ime i zaporka (<http://www.scopus.com/home.url>).

Ovdje nećemo navoditi sve mogućnosti pretraživanja te baze podataka već se ograničavamo samo na pretraživanje po autorima. Da bi se dobili radovi određenog autora, treba primijeniti Autors search i u odgovarajuća polja upisati prezime, ime ili inicijale imena. U posebno polje može se upisati i ustanova u kojoj autor radi. Budući da za neka prezimena i imena postoji u bazi više desetaka autora, a za inicijale imena, ako ne znamo ime, i više stotina autora, Scopus, da bi olakšao pronalaženje traženog autora, ispiše za sve njih prezimena, imena, ponekad samo inicijale imena, znanstveno područje kojim se bave te ustanove u kojima rade. Pritom autorski identifikator objedini u jedan virtualni identitet sve oblike imena kojima se autor služio. Ponekad i uz tako veliku pomoć treba uložiti dodatni trud da bi se pronašli svi virtualni identiteti pojedinog autora. Npr. tražimo radove kartografa prezimenom Du i imenom Qingyun. U bazi su tri virtualna identiteta s tim prezimenom i imenom. Jedan prema području rada nije kartograf. Od preostala dva uz jedan je navedena ustanova (Wuhan University) a uz drugi nije. Uvid u njihove radove otkriva da oba imaju radove iz kartografije što upućuje na zaključak da se radi o istoj osobi. Takav zaključak potvrđuje i podatak da je prvom virtualnom identitetu pridruženo 65 radova od kojih ni jedan iz 2011. godine, a drugom od 10 radova sedam iz 2011. i tri iz 2010. Osim toga, dodatna pretraga na internetu potvrđuje da i autor radova iz 2011. ima adresu Wuhan University, tj. da oba virtualna identiteta pripadaju istom autoru.

Scopus omogućuje i pregled citiranosti pojedinih ili svih radova traženog autora. Da bi se dobili podaci o citiranosti radova pojedinog autora, označi se jedan ili više

**Table 1.** Cartographers with more than 200 citations in Scopus

Author	No. of citations	No. of papers
1. Clarke, Keith C.	1938	74
2. Dorling, Danny	1799	148
3. MacEachren, Alan M.	1698	97
4. Yang, Xiaojun (Florida)	1049	187
5. Li, Zhilin (Hong Kong)	823	148
6. Tobler, Waldo R.	744	44
7. Jones, Christopher B.	666	77
8. Andrienko, Gennady	578	78
9. Andrienko, Natalia	544	74
10. Weibel, Robert	508	38
11. Harley, J. B.	467	27
12. Kraak, Menno Jan	456	85
13. Brewer, Cynthia A.	436	27
14. Dykes, Jason (London)	373	41
15. Jiang, Bin	371	35
16. Buttenfield, Barbara P.	358	38
17. Kimerling, A. J.	337	26
18. McMaster, Robert B.	303	23
19. Dodge, Martin	297	22
20. Du, Qingyun (Wuhan)	282	75
21. Muller, Jean Claude	268	42
22. Monmonier, Mark	251	69
23. Crampton, Jeremy W.	251	22
24. Usery, Lynn	239	44
25. Lloyd, Robert Earl	238	40
26. Guptill, Stephen, C.	222	34
27. Cromley, Robert G.	232	75
28. Bertin, J.	230	2
29. Buchroithner, Manfred	229	64
30. Harrower, Mark A.	217	17
31. Mackaness, William A.	201	33
32. Fabrikant, Sara Irina	201	24

citation of papers by a particular author, one needs to mark one or more of his virtual identities and click on View citation overview. The database yields a citation overview of each

individual paper by year and the total number of citations. The citation numbers are at the same time links to papers citing the author. It is possible to exclude self-citations of the author, as well as all co-authors.

We browsed the database and provided cartographers with more than 200 citations and the number of their papers in the database in Table 1. The number of citations does not include author self-citations.

We published data about citations of cartographers according to the Web of Science (WoS) database in *Cartography and Geoinformation* vol. 12 from 2009, page 13. Those data cannot be compared directly with the Scopus data because of several reasons.

The first reason is different interpretations of citations in WoS and Scopus. Author citation according to WoS is determined by the number of that author's papers' citations, regardless of whether they are included in WoS, in papers published in journals included in WoS. According to Scopus, author citation is determined by the number of citations of his or her papers included in Scopus. This means an author can have a certain number of citations in WoS even if he or she does not have any papers in that database, which is not possible in Scopus.

The second reason is that WoS and Scopus data are not related to the same period. WoS contains citations of paper published since 1955, and we took those from the end of 2008 with an additional requirement that each paper had to be cited at least once between 2000 and 2008. In January of 2012, Scopus contained citations from 1996 to the end of 2011, so we took data for that period. In addition, WoS data include self-citations, while we excluded them from Scopus data, since it is possible. It should be noted that many more sources are included

in Scopus than in WoS.

Still, if we compare data from those two databases, there are some correspondences. Twenty-three cartographers have more than 200 citations in WoS, and thirty-two cartographers have more than 200 citations in Scopus, with 15 of them present in both databases. Furthermore, the top five cartographers in both databases feature K. C. Clarke, D. Dorling and A. M. MacEachren.

Finally, let us note some specifics of browsing in Scopus. In browsing papers (documents) by a particular author, Scopus allows one to enter the author's name in addition to his last name, and not just initials like in WoS. This significantly facilitates search, but can sometimes make the task more difficult. For example, if one searches papers by John Brian Harley and enters both of his names, Scopus does not yield any authors. If one enters one of his names and initial of the other, Scopus is going to yield a number of authors, but not the right one. The reason for this is that all his papers included in Scopus were entered exclusively with initials of both of his names. If one enters both of the author's initials, Scopus is going to yield 10 authors, among which the wanted one can be found by his field of work (Environmental Science; Earth and Planetary Sciences; Social Sciences ...). Thus, Table 1 contains forms of names as they are entered in Scopus and which is going to be the fastest way to find them.

Although browsing in Scopus is simpler and faster than in similar databases, errors are still possible. We are going to be grateful to everyone who warns us of errors in Table 1 or cartographers which should have been included in the table, but were not.

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njegovih virtualnih identiteta i klikne na View citation overview. Dobije se pregled citiranosti svakog pojedinog rada po godinama i ukupan broj citata. Brojevi o citiranosti ujedno su i poveznice na radove koji citiraju tog autora. Postoji mogućnost isključenja samocitata izabranog autora, ali i svih koautora.

Pretražili smo bazu podataka i u tablici 1 naveli kartografe s više od 200 citata i broj njihovih radova uvrštenih u tu bazu. Navedeni broj citata ne sadrži samocitate autora.



U časopisu Kartografija i geoinformacije br. 12 iz 2009. na str. 13 objavili smo podatke o citiranosti kartografa prema bazi podataka Web of Science (WoS). Ti podaci ne mogu se izravno uspoređivati s ovdje objavljenim podacima iz Scopusa iz više razloga.

Prvi razlog je različita interpretacija citiranosti u WoS-u i Scopusu. Citiranost autora prema WoS-u mjeri se brojem citata njegovih radova, neovisno o tome jesu li uvršteni u WoS ili nisu, u člancima objavljenim u časopisima uvrštenim u WoS. U Scopusu se citiranost autora mjeri brojem citata samo onih njegovih radova koji su uvršteni u Scopus. To znači da autor može u WoS-u imati određeni broj citata iako u toj bazi nema ni jedan rad, što u Scopusu nije moguće.

Drugi je razlog, što se podaci u WoS-u i Scopusu ne odnose na isto razdoblje. WoS sadrži citate radova objavljenih od 1955, a mi smo ih

preuzeli do kraja 2008. uz dodatni uvjet da je svaki rad bar jednom citiran u razdoblju 2000–2008. Scopus u siječnju 2012. sadrži citate od 1996. do kraja 2011. pa smo ih za to razdoblje i preuzeli. Osim toga podaci u WoS-u sadrže i samocitate, a u Scopusu smo ih, jer takva mogućnost postoji, isključili. Treba reći i da je u Scopus uključeno mnogo više izvora nego u WoS.

Usporedimo li ipak podatke iz te dvije baze podataka nalazimo na neke podudarnosti. Više od 200 citata u WoS-u imaju 23, a u Scopusu 32 kartografa od kojih je 15 uključeno u obje baze podataka. Nadalje, među prvih pet u obje baze podataka su K. C. Clarke, D. Dorling, i A. M. MacEachren.

Spomenimo na kraju neke specifičnosti pretraživanja u Scopusu. U traženju radova (dokumenata) pojedinog autora Scopus dopušta da se u polja za pretraživanje, uz prezime, upiše ime autora, a ne samo inicijale imena kao npr. u WoS-u. To znatno olakšava pretraživanje i brže dovodi do traženog autora. Međutim, ponekad to može i otežati pretraživanje. Npr. ako u traženju radova Johna Briana Harleya, upišemo oba njegova imena Scopus ne pronalazi ni jednog autora. Upiše li se jedno njegovo ime i inicijali drugoga, Scopus će pronaći određeni broj autora, ali ne i traženog kartografa. Razlog je što je u svim radovima uvrštenim u Scopus upisan isključivo s inicijalima oba imena. Za upisana oba inicijala Scopus pronalazi deset autora, među kojima po području rada (Environmental Science; Earth and Planetary Sciences; Social Sciences ...) pronalazimo traženog kartografa. Stoga smo u tablici 1 imena svih kartografa napisali u obliku u kojem su upisani u Scopus, a koji najbrže dovodi do njihova pronalazjenja.

Iako je pretraživanje u Scopusu jednostavnije i brže nego u sličnim bazama podataka, pogreške su ipak moguće. Bit ćemo zahvalni svima koji nas

**Tablica 1.** Kartografi s više od 200 citata u Scopusu

Autor	Broj citata	Broj radova
1. Clarke, Keith C.	1938	74
2. Dorling, Danny	1799	148
3. MacEachren, Alan M.	1698	97
4. Yang, Xiaojun (Florida)	1049	187
5. Li, Zhilin (Hong Kong)	823	148
6. Tobler, Waldo R.	744	44
7. Jones, Christopher B.	666	77
8. Andrienko, Gennady	578	78
9. Andrienko, Natalia	544	74
10. Weibel, Robert	508	38
11. Harley, J. B.	467	27
12. Kraak, Menno Jan	456	85
13. Brewer, Cynthia A.	436	27
14. Dykes, Jason (London)	373	41
15. Jiang, Bin	371	35
16. Buttenfield, Barbara P.	358	38
17. Kimerling, A. J.	337	26
18. McMaster, Robert B.	303	23
19. Dodge, Martin	297	22
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22. Monmonier, Mark	251	69
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24. Usery, Lynn	239	44
25. Lloyd, Robert Earl	238	40
26. Guptill, Stephen, C.	222	34
27. Cromley, Robert G.	232	75
28. Bertin, J.	230	2
29. Buchroithner, Manfred	229	64
30. Harrower, Mark A.	217	17
31. Mackaness, William A.	201	33
32. Fabrikant, Sara Irina	201	24

upozore na pogreške u tablici 1 ili na kartografe koji bi po broju citata u Scopusu trebali biti uvršteni u tu tablicu, a mi ih nismo uvrstili.

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