

# Defining the Corpus of Mapping Sciences Journals

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**Abstract:** The large number of journals and the constant changes which are happening in the world of scholarly publishing make it difficult to identify a group of journals relevant to a specific scientific field, particularly when dealing with a sub-field such as mapping sciences, which is inter-linked with many other disciplines. In this research, we form the corpus of active journals relevant to the mapping sciences and present their distribution by country, language of publication and level of accessibility. A systematic review of different subject-specific and multidisciplinary databases (*GEOPHOKA*, *Bibliographia Cartographica*, *VINITI*, *GeoRef*, *Scopus* and *Web of Science*), library catalogues, publishers' web sites, professional associations' web sites and other web resources was carried out. By applying set of criteria, a corpus of active journals in the field of mapping sciences was defined: it consists of 105 selected journals. The corpus of mapping sciences journals is described in detail, and the ISSN for each printed and online journal, the publisher, country, URL, language of publication and data on free accessibility are given. The largest numbers of mapping sciences journals are published in Germany, the United States of America and Poland. There are 53 journals in English language, while 44 are in open access. The limitations related to a lack of transparency of data on mapping sciences journals are discussed, as are questions of terminology.

**Keywords:** scholarly publishing, mapping sciences, journals

## 1 Introduction

The popular phrase, “*Publish or perish*” is a faithful illustration of the position authors find themselves in today and the pressures they often face in getting their work published in scholarly journals, which are still the basic means of scholarly communication in most scientific fields. Even when authors know the relevant journals in their area of research extremely well, changes in the world of scholarly publishing, the emergence of new journals and the number of existing ones ceasing publication, make it difficult to decide what to read and where to publish. Indeed, the right choice of a journal to publish in is now more important than ever (Clark and Thompson, 2012). Publication in scholarly journals is a requirement for promotion in scholarly and

teaching professions, tenure position and the award of grants, etc., while keeping up with the literature being published is necessary in order to maintain the quality of scholarly and teaching work (Chisholm-Burns et al, 2012). According to *Ulrich's* database, which keeps records of most world periodicals<sup>1</sup>, in December 2011, 26 746 reviewed scholarly journals were published, 3 304 of them exclusively in digital form (URL 1), of which between 13% (URL 2) and 30% (URL 3) were in open access. Some of these journals are indexed in popular world databases such as *Web of Science* (*Thomson Reuters*), *Scopus* (*Elsevier*), *PubMed* (*National Library of Medicine, USA*), while others remain non-indexed and less visible

<sup>1</sup> *Ulrich's* covers periodical publications in Western countries and those in English significantly better than, say, Chinese periodicals, which are poorly represented.

# Definiranje korpusa geodetskih časopisa

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\* S obzirom na to da je jedan od koautora (ML) član Uredničkog odbora ovog časopisa, postupak recenziranja je obavila i neovisnu uredničku odluku donijela vanjska urednica prof. dr. sc. Ana Marušić (glavna urednica, Journal of Global Health). Zahvaljujemo prof. dr. sc. Ani Marušić na pomoći vezanoj uz potencijalni sukob interesa urednika.

**Sažetak:** Veliki broj časopisa te stalne promjene koje se dešavaju u znanstvenom izdavaštvu čine identifikaciju skupa časopisa relevantnih za određeno znanstveno područje otežanom, posebice kada se radi o užem znanstvenom području povezanom s brojnim drugim područjima, kao što je to područje geodezije. Ovim istraživanjem željeli smo ustanoviti korpus aktivnih časopisa relevantnih za područje geodezije, prikazati njihovu distribuciju prema zemljama, jezicima na kojima objavljuju i dostupnosti. Sustavnim pregledom niza tematskih i višedisciplinarnih baza podataka (*GEOPHOKA*, *Bibliographia Cartographica*, *VINITI*, *GeoRef*, *Scopus* i *Web of Science*), kataloga knjižnica, web stranica izdavača, strukovnih udruga te drugih mrežnih izvora i primjenom dodatnih kriterija definiran je korpus aktivnih časopisa iz područja geodezije koji čini 105 odabranih časopisa. Korpus geodetskih časopisa detaljno je opisan, a za svaki časopis navedeni su ISSN za tiskano i online izdanje, izdavač, zemlja, URL adresa časopisa, jezik izdavanja i podatak o otvorenom pristupu. Najviše geodetskih časopisa izdaju Njemačka, Sjedinjene Američke Države i Poljska. Na engleskom jeziku izlazi 53 časopisa, a 44 časopisa dostupno je u otvorenom pristupu. Diskutirana su prisutna ograničenja vezana uz manjak transparentnosti podataka o geodetskim časopisima kao i terminološka pitanja.

**Ključne riječi:** znanstvena publicistika, geodezija, korpus časopisa

## 1. Uvod

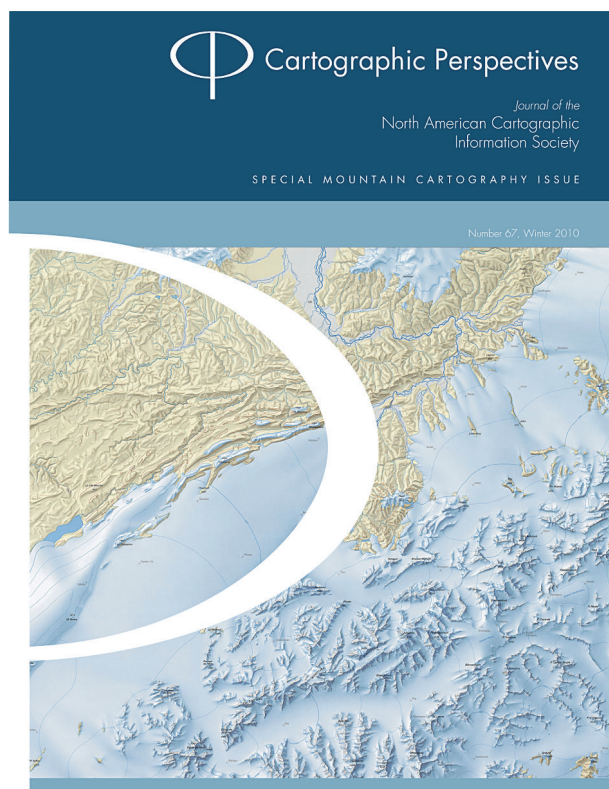
Popularna sintagma “*publish or perish*” vjerno oslikava današnju poziciju autora i pritisak s kojim se često suočavaju pri objavljivanju radova u znanstvenim časopisima koji su i danas osnovno sredstvo znanstvene komunikacije u većini znanstvenih područja. Pa iako autori određenog znanstvenog područja najčešće dobro poznaju odgovarajuću znanstvenu publicistiku, promjene u svijetu znanstvenog izdavaštva, pojava novih časopisa i prestanak izlaza nekima postojećih, otežavaju odabir časopisa koje će pratiti i u kojima će objavljivati. Istodobno, dobar odabir časopisa u kojem će autor objaviti svoj rad važniji je nego ikad prije (Clark i Thompson, 2012). Objavljivanje u znanstvenim časopisima uvjet je za napredovanje u znanstveno-nastavnim

zvanjima, osiguravanje radnih mjesta, dobivanje projekata i sl., a praćenje objavljene literature nužno je za kvalitetan znanstveni i nastavni rad (Chisholm-Burns i dr., 2012). Prema bazi podataka *Ulrich's* koja evidentira većinu svjetske periodike<sup>1</sup>, u prosincu 2011. izlazilo je 26 746 recenziranih znanstvenih časopisa, njih 3304 isključivo u digitalnom obliku (URL 1), od čega je između 13% (URL 2) i 30% (URL 3) raspoloživo u otvorenom pristupu. Jedan dio tih časopisa indeksiran je u popularnim svjetskim bazama podataka kao što su *Web of Science* (*Thomson Reuters*), *Scopus* (*Elsevier*), *PubMed* (*National Library of Medicine, SAD*), dok dio časopisa ostaje neindeksiran i nevidljiv potencijalnim autorima i čitateljima.

<sup>1</sup> *Ulrich's* znatno bolje pokriva periodične publikacije zapadnih zemalja, kao i one na engleskom jeziku, dok su npr. periodične publikacije iz Kine slabije zastupljene.

to potential authors and readers.

Identifying relevant periodical publications, particularly for smaller, interdisciplinary fields such as mapping sciences, remains a difficult task. Journals in the field of mapping sciences deal directly with practical problems, attempting to interpret them in their entirety, establishing principles and methods for further research (Salichtchev, 1979), so it is important that experts in the field can find and access them easily. In this research, we wanted to establish the corpus of active journals relevant to the field of mapping sciences and present their distribution by country, language of publication and level of accessibility.



## 2 Overview of the Literature

Analyses of scholarly publications in a particular academic discipline often focus today on bibliometric indicators, using commercial citation databases such as *Web of Science* and *Scopus*, favoring the fields of biomedicine and related sciences, while other disciplines are to some extent neglected. In terms of mapping sciences, very few recent works have dealt with scholarly publications in this field (Frančula, 2011; Frančula and Lapaine, 2011a). The well known Russian cartographer, K. A. Salishchev<sup>2</sup>, systematically monitored journals in the

<sup>2</sup> Константин Алексеевич Салищев (1905–1988), a famous Russian geographer and cartographer. His surname is sometimes transliterated as Salishchev, Salichtchev or Sališčev.

field of mapping sciences, particularly cartography, and published several papers on this topic. In 1966, he wrote a paper in which he presented and compared 17 journals and anthologies in the field of cartography, 12 cartographic-geodetic publications, and several geographic and surveying journals which dealt systematically with cartographical problems (Salichtchev, 1966). In his next paper, on the topic of cartographic journals, he provided a systematic survey of journalism by country, listing all the important publications of each country (Salichtchev, 1979). Giving his reasons for such a comprehensive survey, he emphasised primarily the accelerated development of cartography as a discipline and the growth in the number of publications in this field. His research was also specific in covering all the important publications from each country, including the so-called Eastern Bloc countries, which had a rich tradition in this field. The author eliminated from his comparative study countries whose publications in the field of cartography only appeared sporadically, without making any significant contribution to the discipline globally. Later research focused more on publications from developed countries, particular English-speaking ones. A survey of some cartography and GIS journals and journals in English was compiled by David Y. Allen, paying particular attention to trends in providing open access, and to the historical development of some cartographic journals (Allen, 2005). In relation to open access, he singles out two journals, *Journal of Maps*<sup>3</sup> and *Coordinates*. The results of assessing journals on geoinformation sciences (GIScience) according to a survey using the Delphi method among the editors of scholarly journals (Caron et al, 2008), were also published. The authors started with an initial selection of 121 journals, but their final analysis covered 46, of which 11 were mapping sciences journals. The results of this assessment, produced by means of a survey, were then compared with an assessment of 21 journals achieved using journal impact factors. Since, the sample of editors, i.e. countries from which they came, indirectly affected the selection of journals, many regional publications were excluded from this analysis.

## 3 Methodology

In this research, we considered journals to be relevant to mapping sciences if they were active and had an International Standard Serial Number (ISSN), and if more than a half contents covered at least one branch of geodesy, according to the classification of the Croatian Ordinance on Scientific and Artistic Areas, Fields and

<sup>3</sup> In the meantime, *Journal of Maps* has been bought by Wiley and is not longer open access.

Posebice za manja i interdisciplinarna područja, kao što je područje geodezije, identifikacija relevantnih periodičnih publikacija je otežana. Časopisi iz područja geodezije direktno se bave praktičnim problemima nastojeći ih u cijelosti interpretirati, ustanovljavajući principe i metode za daljnja istraživanja (Salichtchev, 1979) te je važno da ih stručnjaci iz područja mogu lako pronaći i pristupiti im. Ovim istraživanjem željeli smo ustanoviti korpus aktivnih časopisa relevantnih za područje geodezije, prikazati njihovu distribuciju prema zemljama, jezicima na kojima objavljuju i dostupnosti.

## 2. Pregled literature

Analize znanstvene publicistike određenog znanstvenog područja danas su često usmjerene na bibliometrijske pokazatelje pri čemu se koriste komercijalne citatne baze podataka kao što su *Web of Science* i *Scopus*, a često su predmetom analize časopisi iz područja biomedicine i srodnih znanosti, dok su ostala područja donekle zanemarena. Kada je riječ o području geodezije, objavljeno je vrlo malo radova novijeg datuma koji se bave znanstvenom publicistikom tog područja (Frančula, 2011; Frančula i Lapaine, 2011a). Poznati ruski kartograf K. A. Sališčev<sup>2</sup> sustavno je pratio časopise iz područja geodezije, posebice kartografije i o tome objavio nekoliko radova. U radu iz 1966. godine dao je prikaz i usporedbu 17 časopisa i zbirki iz područja kartografije, 12 kartografsko-geodetskih publikacija i nekih geografskih i geodetskih časopisa koji su se sustavno bavili problemima iz područja kartografije (Salichtchev, 1966). U svom drugom radu na temu kartografskih časopisa dao je sustavni prikaz publicistike po zemljama, navodeći sve važnije publikacije pojedine zemlje (Salichtchev, 1979). Kao razloge za takav sveobuhvatan prikaz autor ističe ponajprije ubrzani razvoj kartografije kao discipline te porast publikacija iz tog područja. Njegovo je istraživanje također specifično po tome što su obuhvaćene važne publikacije iz svih zemalja, uključujući i tzv. zemlje istočnog bloka s bogatom tradicijom u tom području. Autor je iz svoje komparativne studije izbacio zemlje koje publikacije iz područja kartografije objavljuju sporadično i ne pridonose znatnije globalnoj publicistici tog područja. Kasnija istraživanja geodetske publicistike više su usmjerena na publikacije iz razvijenih zemalja, posebno one engleskoga govornog područja. Pregled dijela časopisa i magazina na engleskom jeziku iz područja kartografije i GIS-a dao je David Y. Allen, posebno se osvrćući na trendove otvorenog pristupa i na povijesni

razvoj nekih kartografskih časopisa (Allen, 2005). Što se tiče otvorenog pristupa ističe dva časopisa, *Journal of Maps*<sup>3</sup> i *Coordinates*. Objavljeni su i rezultati vrednovanja časopisa geoinformacijske znanosti anketom prema metodi Delphi među urednicima znanstvenih časopisa (Caron i dr., 2008). Autori su krenuli od inicijalnog skupa od 121 časopisa, dok je završna analiza provedena na 46 časopisa, među kojima je i 11 geodetskih. Rezultati vrednovanja dobiveni anketom uspoređeni su s vrednovanjem pomoću faktora odjeka za 21 časopis. Kako je pri toj analizi uzorak urednika, tj. zemalja iz kojih dolaze posredno uvjetovao i odabir časopisa, iz te su analize izostavljeni mnogi tzv. regionalni časopisi.

## 3. Metodologija

U ovom istraživanju geodetskim smo časopisima smatrali aktivne časopise koji imaju International Standard Serial Number (ISSN) i koji većinom svog sadržaja pokrivaju bar jednu granu geodezije, sukladno klasifikaciji iz hrvatskoga Pravilnika o znanstvenim i umjetničkim područjima, poljima i granama (URL 4) unutar koje je polje geodezija u području tehničkih znanosti. Prema tome Pravilniku geodezija sadrži sljedeće grane: kartografiju, fotogrametriju i daljinska istraživanja, pomorsku, satelitsku i fizikalnu geodeziju, primijenjenu geodeziju i geomatiku.

U ovome radu nećemo ulaziti u detaljnije objašnjenja ili definiranje geodezije i svih njezinih grana. Međutim, osvrnut ćemo se ipak na dva naziva: geodezija i geomatika. Oni se mogu protumačiti na različite načine dok su ostali nazivi grana uglavnom opće prihvaćeni i jasni. Jasno je da je terminologija važna za naše istraživanje koje se najviše oslanja na rezultate pretraživanja baza podataka.

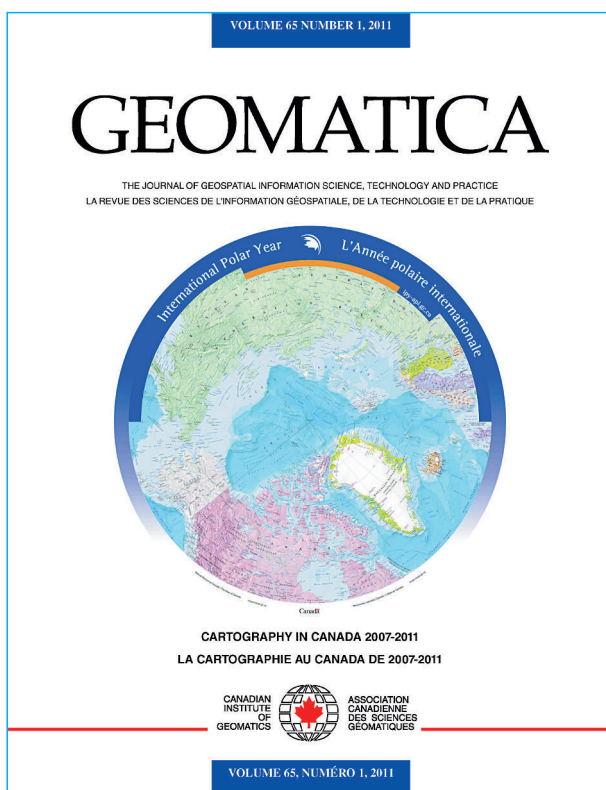
U engleskoj stručnoj terminologiji termin *geodesy* ponajprije označuje fizikalnu i satelitsku geodeziju (*physical and satellite geodesy*). Stoga ako je potreban termin koji objedinjuje sve grane što ih geodezija uključuje u hrvatskoj stručnoj terminologiji, upotrebljavaju se termini *surveying and mapping* i *mapping sciences*. Tako se rječnik koji sadrži oko 11 000 termina iz primijenjene geodezije, fizikalne i satelitske geodezije, fotogrametrije, daljinskih istraživanja, kartografije i srodnih znanosti naziva *Glossary of Mapping Sciences* (vidi Frančula i Frankeš, 2004). Takva terminologija koristi se i na web-stranicama časopisa, pa npr. *Acta Geodaetica et Cartographica Sinica* (URL 13) koji objavljuje radove iz svih grana geodezije rabi termin *surveying and mapping*.

<sup>2</sup> Константин Алексеевич Салищев (1905-1988), slavni ruski geograf i kartograf. Njegovo prezime se ponekad transliterira kao Salishchev, Salichtchev ili Sališčev.

<sup>3</sup> Journal of Maps kupio je u međuvremenu izdavač Wiley i više nije časopis u otvorenom pristupu.

Branches (URL 4), which places geodesy in the area of the technical sciences. According to this classification, geodesy comprises the following branches: cartography, photogrammetry and remote sensing, marine, satellite and physical geodesy, applied geodesy and geomatics. We also considered journals to be in mapping sciences if their titles contained a variant of the word 'geodesy'.

In this paper, we will not enter into a detailed explanation or definition of geodesy and all its branches. However, we will consider two terms: geodesy and geomatics. These may be interpreted in different ways, while other branches are generally accepted and clear. Obviously, terminology was important in our research, as the results depended primarily on database searches.



In English professional literature, the term *geodesy* primarily means physical and satellite geodesy. So if a term is necessary to cover all the branches covered by geodesy in Croatian professional terminology, the terms *surveying and mapping* and *mapping sciences* are used. Thus, a dictionary containing about 11 000 terms used in applied geodesy, physical and satellite geodesy, photogrammetry, remote sensing, cartography and related sciences is called the *Glossary of Mapping Sciences* (see Frančula and Frangeš, 2004). Similar terminology is also used on the websites of journals such as *Acta Geodaetica et Cartographica Sinica* (URL 13) which uses the term *surveying and mapping* as the category for papers published in all branches of geodesy.

Changes which occurred in mapping sciences in the late 20th and early 21st centuries, linked to the development of digital, satellite and computer technology, were so important and far-reaching that they provoked changes in the names of geodetic societies, journals, colleges, and indeed throughout the entire discipline. In Canada, for example, the terms *surveying and mapping* or *mapping science* were replaced by *geomatics*, and this also happened in Australia, the USA and later, in Europe. *Geomatics* is a contemporary name for the integrated approach to gathering, analysing and presenting spatial information and using it. The emergence of geomatics means the integration of physical and satellite geodesy with photogrammetry, remote sensing, cartography, geographic and land information systems and multimedia communications. With the development of information technology and spatial and computer sciences, classic geodesy has been transformed from the analogue to the digital, from the static to the dynamic and kinematic, moving from data which is processed after collection to real-time data processing, and from a local to a global approach (Li, 1998).

A synonym for geomatics which is often used is *geoinformatics*. Hobbie points out that the geodetic engineer has been transformed into a geoinformatician (*Vermessungsingenieur zum Geoinformatiker*) (Hobbie, 1998). Many terminological confusions have not been resolved, and Gajos emphasises that “*ensuing terminological mess is a result of the dynamics of development and the interdisciplinary nature of the field of geoinformation*” (Gajos, 2008). Terms such as *GIScience*, *geoinformation science*, *geographic information science*, *geomatic engineering* and others are often defined in the same way as *geoinformatics*, while on the other hand, there are differences in the definitions of *geoinformatics* or *geomatics*. *Geoinformatics* is defined as the science and technology which applies information science to address problems in all areas of the geosciences, while the term *geomatics* is usually restricted to geodesy and its branches. For more on changes in geodesy during the 1990s, see in (Frančula and Lapaine, 2002).

At the turn of the 21st century, *geomatics* or *geomatic engineering* began to be replaced by *geospatial engineering* in some places. So, for example, the *Geomatics Journal of Hong Kong* changed its name to the *Journal of Geospatial Engineering*. The term *geospatial engineering* combines cartography, GIS, satellite and physical geodesy, GPS, photogrammetry, remote sensing and applied geodesy (Li, 2000).

All these changes in geodesy have not caused such radical changes in Croatian professional terminology as they have in English terminology. The name of the

Promjene koje su se dogodile u geodeziji potkraj 20. i početkom 21. stoljeća, a vezane su uz razvoj digitalne, satelitske i računalne tehnologije, tako su važne i velike da izazivaju promjene naziva geodetskih udruga, časopisa, ali i geodetskih učilišta pa i cijele struke. Najprije u Kanadi, potom u Australiji, Sjedinjenim Američkim Državama, a zatim i u Europi uvodi se umjesto geodezije (engleski *surveying and mapping, mapping science*) ponegdje naziv geomatika (*geomatics*). Geomatika je suvremeni znanstveni naziv za integrirani pristup prikupljanju, analizi i prikazu prostornih podataka te upravljanju njima. Pojava geomatike znači integraciju fizikalne i satelitske geodezije s fotogrametrijom, daljinskim istraživanjima, kartografijom, geografskim i zemljišnim informacijskim sustavima te multimedijском komunikacijom. S razvojem informacijskih, prostornih i računalnih znanosti klasična se geodezija pretvara od analogne u digitalnu, od statičke u dinamičku i kinematičku, prelazi od naknadne obrade podataka na obradu u stvarnome vremenu, od lokalnog pristupa na globalni (Li, 1998).

Za geomatiku često se kao sinonim upotrebljava termin geoinformatika (engleski *geoinformatics*). Hobbie u svom radu ističe da se geodetski inženjer pretvara u geoinformatičara (*Vermessungsingenieur zum Geoinformatiker*) (Hobbie, 1998). Mnoge terminološke nejasnoće nisu još razjašnjene, a Gajos ističe „da je postojeća terminološka zavrzlama posljedica dinamičnog razvoja i interdisciplinarnе prirode područja istraživanja geoinformatike“ (Gajos, 2008). Nazivi kao *GIScience, geoinformation science, geographic information science, geomatic engineering* i dr. često su definirani na isti način kao *geoinformatics*, a s druge strane postoje razlike u definicijama za *geoinformatics* ili *geomatics*. Geoinformatika se definira kao znanost i tehnologija koja primjenjuje informacijsku znanost za rješavanje problema iz područja svih geoznanosti, dok je termin geomatika najčešće ograničen na geodeziju i njezine grane. Više o promjenama koje su se u geodeziji dogodile u posljednjim desetljećima 20. stoljeća vidi u (Frančula i Lapaine, 2002).

Početkom 21. stoljeća termin *geomatics* ili *geomatic engineering* ponegdje se zamjenjuje terminom *geospatial engineering*. Tako npr. časopis *Geomatics Journal of Hong Kong* mijenja naziv u *Journal of Geospatial Engineering*. Termin *geospatial engineering* objedinjuje kartografiju, GIS, satelitsku i fizikalnu geodeziju, GPS, fotogrametriju, daljinska istraživanja i primijenjenu geodeziju (Li, 2000).

Sve te promjene koje su se dogodile u geodeziji nisu u hrvatskoj stručnoj terminologiji izazvale takve promjene kao u engleskoj terminologiji. Naziv fakulteta u Zagrebu ostao je i nadalje Geodetski fakultet, a studij geodezije zamijenjen je studijem geodezije i geoinformati-

ke, kao npr. i na nekim fakultetima u Austriji, Njemačkoj i Sloveniji (Frančula i Lapaine, 2011b).

Navedene razlike između hrvatske i engleske geodetske terminologije te različiti engleski termini koji objedinju grane geodezije prema hrvatskoj stručnoj terminologiji bitno otežavaju pronalaženje geodetskih časopisa u različitim bazama podataka. Stoga je definiranje korpusa geodetskih časopisa primjenom složene metodologije važan doprinos koji će s jedne strane omogućiti kvalitetniji uvid u znanstvenu publistiku iz tog područja, a s druge olakšati odabir časopisa za objavljivanje svim istraživačima iz tog područja.



Podjela geodezije koja se primjenjuje u Hrvatskoj sveobuhvatna je, iako nerijetko neusklađena s područjima znanosti koje različiti časopisi navode kao svoje polje djelovanja, kao i s klasifikacijom područja znanosti korištenom u različitim indeksnim publikacijama koje uključuju područje geodezije, što je zahtijevalo detaljno provjeravanje sadržaja svakog časopisa.

Pri definiranju početnog skupa časopisa ponajprije smo se oslonili na dvije geodetske baze podataka, *GEOPHOKA*, koja uključuje 92 časopisa i periodičnih publikacija i među njima, po našoj procjeni, 29 geodetskih časopisa, i *Bibliographia Cartographica*, koja uključuje 72 časopisa od kojih, po našoj procjeni, 52 geodetska. Treba naglasiti da *GEOPHOKA* u svom popisu ima veći broj

faculty in Zagreb is still the Faculty of Geodesy, although studies in geodesy have been replaced by studies in geodesy and geoinformatics, and the same has happened at some faculties in Austria, Germany and Slovenia (Frančula and Lapaine, 2011b).

These differences between Croatian and English mapping sciences terminology, and the various English terms which combine branches of geodesy as defined in Croatian expert terminology make it much more difficult to track down mapping sciences journals in different databases. Therefore defining the corpus of mapping sciences journals by the applying a complex methodology is an important contribution, which will both enable a better insight into scholarly journalism in this area, and make it easier to select journals in which to publish research in this area.

The division of geodesy implemented in Croatia is comprehensive, but not always aligned with the areas of science which different journals state in their journal scope, nor with the classification areas of science used in various indexed publications which include the area of geodesy. This meant that the contents of each journal had to be verified in detail.

In defining the initial group of journals, we first relied on two mapping sciences databases, *GEOPHOKA*, which covers 92 journals and periodicals, of which 29 are mapping sciences journals according to our assessment, and *Bibliographia Cartographica*, which covers 72 journals, of which 52 are mapping sciences according to our assessment. It should be pointed out that *GEOPHOKA* has more conference proceedings on its list, as well as journals which have not been published for years. As a resources for additional selection of mapping sciences journals, we used the multidisciplinary databases *Scopus* and *Web of Science*, searching by the classification of scientific areas used in each database, and also by keywords. Mapping sciences journals in the *Scopus* database are mostly found in the *Earth and Planetary Sciences* category, while the *Web of Science* database puts them mostly in the categories *Geochemistry and Geophysics*, *Geosciences - Multidisciplinary* and *Remote Sensing*.

In approaching this demanding task, a great challenge was posed by the fact that, even though at first sight the terminology seemed to concur, we could not include any journal in corpus of mapping sciences journals without carrying out further checks. For example, *Web of Science* has a subject category called *Remote Sensing*, which in 2011 included 24 journals, but among these were five mapping sciences journals not exclusively dedicated to remote sensing, and four which include photogrammetry with remote sensing, so that in fact, we only considered 9 of the 24 to be mapping

sciences journals. That may seem at first sight contradictory, since according to the official division of science in Croatia remote sensing and photogrammetry are both branches of geodesy. However, not every kind of remote sensing belongs to mapping sciences.

In addition, in the *Scopus* database we found two journals in the area of remote sensing which were not in the *Web of Science* database. We examined the titles and contents of all the articles published in these journals in the past three years. Our research showed that not one of the journals in the area of remote sensing which did not include photogrammetry was in fact a mapping sciences journal. For example, the topics covered by a journal dedicated to electromagnetic phenomena related to physical problems (*Radio Science*), are not mapping sciences topics. Furthermore, some journals dedicated to the application of remote sensing in various scientific fields (*Remote Sensing of Environment*, *IEEE Transactions on Geoscience and Remote Sensing*, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *GIScience and Remote Sensing*), and others similar to them, are not mapping sciences journals, according to our criteria, as they only contained small amounts of mapping sciences content, and our principle in selecting journals was that the majority of their contents should relate to mapping sciences.

We also searched the *GeoRef* database of the American Geological Institute, which contains about 3 500 journals, and the database of the Russian Academy of Science, *VINITI*, which contains 2 267 Russian journals.

In order to define the corpus of mapping sciences journals in the best possible, most comprehensive way, we also examined the titles of journals in the libraries of several higher education institutions, which provide sources for their clients in the area of mapping sciences, for example the library of the Geodesy Department at the Technical University in Graz (URL 6) and the University of Michigan's Virtual Geosciences Library (URL 7). We also examined a list of serial geodetic publications of the International Association of Geodesy (URL 8), the list of journals of the Geodesy Section of the American Geophysical Union (URL 9) and the list of publications Excellence in Research for Australia (ERA) in the area of Geomatic Engineering (URL 10). The list in *Journals and Newsletter relating to the History of Cartography* (URL 11) also proved extremely useful, as it provided a wide-ranging list of cartographic content. We also used the subject indexes of journals of publishers such as Springer, Wiley, Taylor and Francis, Maney Publishing, and others, and the web pages of international, national and regional professional associations.

Geoinformation science (GIScience) is a new science

zbornika radova, ali i časopisa koji već godinama ne izlaze. Za dodatni odabir geodetskih časopisa koristili smo se višedisciplinarnim bazama podataka *Scopus* i *Web of Science*, pri čemu smo upotrijebili klasifikaciju znanstvenih područja primjenjenu u pojedinoj bazi podataka, kao i pretraživanje po ključnim riječima. Geodetski časopisi unutar baze podataka *Scopus* razvrstani su većinom unutar kategorije *Earth and Planetary Sciences*, dok su unutar *Web of Science* baze podataka razvrstani većinom unutar kategorija *Geochemistry & Geophysics*, *Geosciences - Multidisciplinary* i *Remote Sensing*.

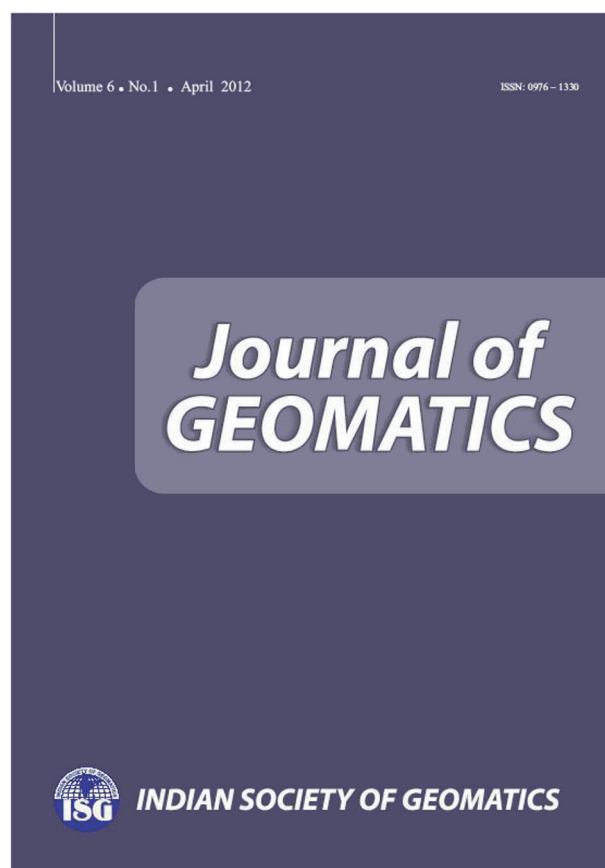
Pri tom zahtjevnom poslu veliki je izazov bila činjenica da unatoč izglednom podudaranju u terminologiji u korupus geodetskih časopisa nije bilo moguće uključiti časopise bez dodatnih provjera. Tako na primjer *Web of Science* ima predmetnu skupinu *Remote Sensing*, koja 2011. uključuje 24 časopisa, ali je među njima i pet geodetskih koji nisu isključivo namijenjeni daljinskim istraživanjima, kao i četiri časopisa koji uz daljinska istraživanja uključuju i fotogrametriju, pa smo od navedena 24 časopisa njih devet smatrali geodetskim. To na prvi pogled može izgledati kontradiktorno činjenici da su daljinska istraživanja (*remote sensing*) zajedno s fotogrametrijom prema službenoj podjeli znanosti u Hrvatskoj grane geodezije. Međutim, ipak nisu sva daljinska istraživanja uključena u geodeziju.

Dodatno u bazi *Scopus* pronašli smo još dva časopisa iz područja daljinskih istraživanja koji nisu uključeni u *Web of Science*. Pregledali smo naslove i sažetke svih objavljenih članaka u tim časopisima u posljednje tri godine. Istraživanje je pokazalo da niti jedan časopis iz područja daljinskih istraživanja, koji ne uključuje fotogrametriju, nije geodetski. Tematika koju npr. obrađuje časopis posvećen elektromagnetskim fenomenima vezanim za fizičke probleme (*Radio Science*) nije geodetska. Nadalje časopisi namijenjeni primjeni daljinskih istraživanja u mnogim granama znanosti (*Remote Sensing of Environment*, *IEEE Transactions on Geoscience and Remote Sensing*, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *GIScience and Remote Sensing*) i drugi slični također nisu geodetski, prema našim kriterijima, jer geodetske sadržaje uključuju u manjoj mjeri, a naše je načelo pri odabiru časopisa bilo da geodetski sadržaji moraju činiti većinu ukupnog sadržaja.

Pretražili smo i bazu podataka *GeoRef* Američkog instituta za geologiju koja sadrži oko 3500 časopisa te bazu podataka Ruske akademije znanosti *VINITI* s 2267 ruskih časopisa.

Kako bismo što kvalitetnije i sveobuhvatnije definirali korpus geodetskih časopisa, pregledali smo i naslove časopisa nekih visokoškolskih knjižnica koje svojim korisnicima nude izvore iz područja geodezije, kao npr.

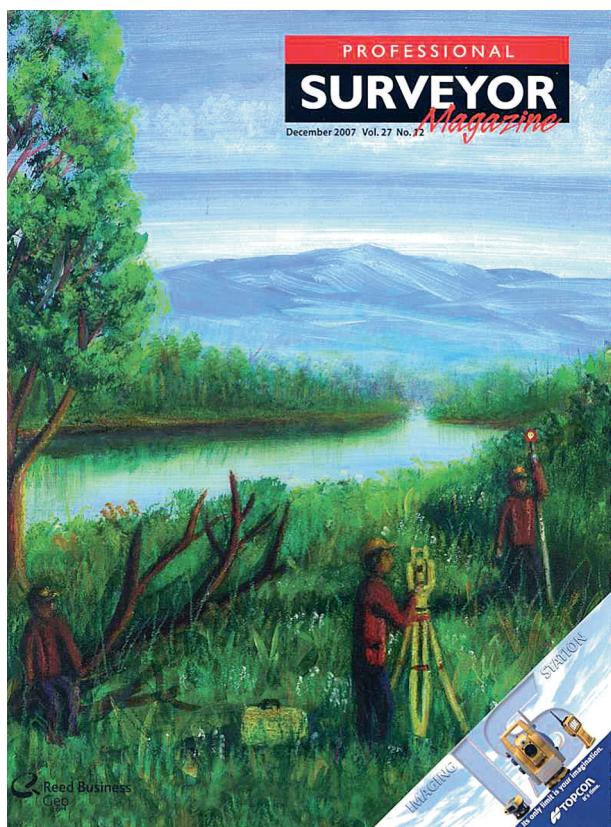
knjižnice Odjela za geodeziju Tehničkog sveučilišta u Grazu (URL 6) i Sveučilišta Michigan (Virtual Geosciences Library) (URL 7). Pregledan je i popis serijskih geodetskih publikacija Međunarodne geodetske udruge (IAG) (URL 8), popis časopisa Geodetske sekcije Međunarodne geofizičke unije (URL 9) i popis publikacija *Excelsence in Research for Australia* (ERA) za područje *Geomatic Engineering* (URL 10). Vrlo se korisnim pokazao i popis *Journals and Newsletters relating to the History of Cartography* (URL 11) koji donosi opsežan popis kartografskih sadržaja. Koristili smo se i predmetnim prikazima časopisa izdavačkih kuća kao što su Springer, Wiley, Taylor & Francis, Maney Publishing i dr., kao i web-stranicama međunarodnih, nacionalnih i regionalnih strukovnih udruga.



Geoinformacijska znanost (*GIScience*) nova je znanost u kojoj se studiraju problemi prikupljanja, programiranja, pohrane, analize, pretraživanja, sinteze i razdiobe geopodataka. Rješavanje većine tih problema omogućeno je razvojem računalno utemeljenih tehnologija kao što su geoinformacijski sustavi (*GIS*), daljinska istraživanja i globalni sustavi pozicioniranja (*GPS*). Geoinformacijska znanost je temelj na kojem su zasnovane sve te nove tehnologije. *University Consortium for Geographic Information Science* (UCGIS) naglašava multidisciplinarnu prirodu geoinformacijske znanosti i potrebu



in which the problems of gathering, programming, storing, analysing, searching, synthesising and classifying geodata are studied. Most of these problems have been resolved by the development of computer-based technology, for example geoinformation systems (GIS), remote sensing and the global positioning system (GPS). Geoinformation science is the foundation on which all these new types of technology are based. The University Consortium for Geographic Information Science (UCGIS) emphasises the multidisciplinary nature of geoinformation science and the need for balance and



cooperation between all the disciplines. These are, in alphabetical order: cartography, cognitive science, computer science, engineering and land surveying, environmental sciences, geodetic science, geography, landscape architecture, law and public policy, remote sensing and photogrammetry, and statistics (URL 12). We checked 46 journals in the area of geoinformation science covered in research by Caron et al. (2008). We found 11 mapping sciences journals with which we were very familiar and 5 on remote sensing whose contents we had examined earlier, and concluded that only one could be considered mapping sciences journal.

For each journal, we examined the contents in order to establish whether the majority belonged in the area of mapping sciences. We carried out additional checks

on journals indexed in the *GeoRef*, *Scopus* and *Web of Science* databases, to determine the percentage of mapping sciences contents as opposed to other contents by means of a simple control search inquiry<sup>4</sup>. Although the inquiry included polysemantic words such as *map* and *mapping*, since it was applied to previously selected potential journals on mapping sciences, the results were appropriate. For each journal, we compiled information regarding the title, ISSN, eISSN, publisher, country, URL, language in which most articles were published and the level of accessibility of the contents.

Among mapping sciences journals, a certain number were discovered with irregular frequency of publication, as well as journals with no available information on frequency of publication. All journals with no issue published in 2011 and 2012 were excluded from the corpus of mapping sciences journals.

All the information on journals was compiled between 1 May and 20 November 2012.

#### 4 Limitations

The limitations apparent in this research related to the lack of access to or information about journals, and to terminology which has different meanings in different language situations. Although the initial group of journals considered in the research contained over 200 titles, it was extremely difficult in many cases to verify information about them or their contents. We were surprised to find that a certain number of mapping sciences journals still have no online version, but are distributed solely in printed form. We used the catalogues of national libraries as sources of information about such journals. In the case of journals published in Chinese, Korean and other languages whose scripts are unknown to us, we relied on the English versions or catalogue records, and if this was not possible, resorted to Google Translate. If there was absolutely no way of verifying information about a journal, we excluded it from the corpus.

#### 5 Results and Discussion

By searching through different sources and databases in the way described above, we made a selection of 105 mapping sciences journals, listed in Appendix 1. According to the results of our research mapping sciences journals are published in 31 countries. The distribution

<sup>4</sup> TITLE-ABS-KEY (map\* OR "remote\* sens\*" OR geocomput\* OR geoinformat\* OR gis OR gps\* OR photogrammet\* OR geoid\* OR geode\* OR geomat\* OR cartograph\* OR surveying OR cadastral\* OR hydrograph\*)

za uravnoteženošću i suradnjom svih disciplina. Navedene su abecednim redom: fotogrametrija i daljinska istraživanja, geografija, kartografija, kognitivna znanost, pejzažna arhitektura, praktična i inženjerska geodezija, pravo i javna politika, računalna znanost, satelitska i fizikalna geodezija, statistika, znanosti o okolišu (URL 12). Provjerili smo stoga i 46 časopisa iz područja geoinformacijskih znanosti obuhvaćenih istraživanjem Carona i dr. (2008). Među tih 46 časopisa 11 je nama dobro poznatih geodetskih časopisa i pet časopisa iz daljinskih istraživanja kojih smo sadržaje već prethodno provjerili i od kojih smo jedan smatrali geodetskim.

Za svaki smo časopis provjerili sadržaj kako bismo ustanovili pripada li većina sadržaja području geodezije. Dodatno smo provjeravali časopise indeksirane u bazi podataka *GeoRef*, *Scopus* i *Web of Science* kako bismo preko jednostavnoga kontrolnog upita ustanovili postotak geodetskih sadržaja u odnosu na ostale sadržaje<sup>4</sup>. Iako su u upit bile uključene i višeznačne riječi kao što su npr. *map*, *mapping*, s obzirom na to da je pretraživanje provedeno na već odabranim potencijalnim časopisima iz geodezije, odziv je bio odgovarajući. Za svaki smo časopis prikupili informacije o naslovu časopisa, ISSN, eISSN, izdavaču, zemlji, URL adresi časopisa, jeziku na kojem je objavljena većina radova i dostupnosti sadržaja.

Među geodetskim časopisima pronađen je određeni broj časopisa koji izlaze neredovito, a za neke od njih nije bilo moguće doći do informacija o učestalosti izlazenja. Sve časopise koji tijekom 2012. i 2011. nisu izdali ni jedan broj isključili smo iz korpusa geodetskih časopisa.

Svi podaci o časopisima prikupljeni su u razdoblju od 1. svibnja do 20. studenoga 2012.

#### 4. Ograničenja

Ograničenja prisutna u ovom istraživanju odnose se na nedostupnost i manjkavost informacija o časopisima te na terminologiju koja ima različito značenje u različitim govornim područjima. Iako je početni skup časopisa koji smo u istraživanju razmatrali sadržavao nešto više od 200 časopisa, provjera podataka o njima kao i provjera sadržaja u mnogim je slučajevima bila vrlo otežana. Začudilo nas je da određeni broj geodetskih časopisa još uvijek nema svoju mrežnu inačicu već se isključivo distribuiraju u tiskanom obliku. Za takve smo se časopise kao izvorom informacija koristili katalozima nacionalnih knjižnica. Za časopise koji izlaze na kineskom,

korejskom i drugim jezicima koji se služe posebnim pismima koristili smo se engleskom inačicom časopisa ili kataložnih zapisa, a u slučaju kada to nije bilo moguće, koristili smo se prevoditeljem Google. Kada ni na koji način nismo mogli provjeriti informacije o časopisu isključili smo ga iz korpusa.

#### 5. Rezultati i diskusija

Pretražujući sve izvore i baze podataka opisane u prethodnom odjeljku odabrali smo 105 geodetskih časopisa, navedenih u Prilogu 1. Prema rezultatima našeg istraživanja geodetske časopise objavljuju izdavači u 31 zemlji. Distribucija geodetskih časopisa prema zemlji pokazuje da većina zemalja, njih 20, objavljuje jedan ili dva geodetska časopisa, dok 8 zemalja objavljuje od tri do sedam geodetskih časopisa. Među njima se ističu zemlje s dugogodišnjom tradicijom istraživanja u području geodezije: Francuska, Nizozemska i Velika Britanija. Tri se zemlje izdvajaju po broju geodetskih časopisa: Poljska objavljuje 10 geodetskih časopisa, Sjedinjene Američke Države 14, a Njemačka čak 16 (tablica 1).

Tablica 1. Distribucija geodetskih časopisa po zemljama

Zemlja	# časopisa	Zemlja	# časopisa
Australija	1	Hrvatska	2
Grčka	1	Indija	2
Južnoafrička Republika	1	Italija	2
Litva	1	Kina	2
Norveška	1	Rusija	2
Republika Koreja	1	Srbija	2
Slovenija	1	Finska	3
Španjolska	1	Japan	3
Švedska	1	Kanada	3
Tajland	1	Mađarska	3
Češka	1	Švicarska	4
Slovačka	1	Nizozemska	6
Bosna i Hercegovina	2	Velika Britanija	6
Austrija	2	Francuska	7
Brazil	2	Poljska	10
		SAD	14
		Njemačka	16

Neki geodetski časopisi objavljuju radove na više jezika unutar istog časopisa, posebice kada je riječ o manje zastupljenim jezicima. Nerijetko se uz radove na službenom jeziku zemlje izdavača objavljuju i radovi na engleskom jeziku, a oznaka jezika kod časopisa odnosi se na

<sup>4</sup> TITLE-ABS-KEY(map\* OR "remote\* sens\*" OR geocomput\* OR geoinformat\* OR gis OR gps\* OR photogrammet\* OR geoid\* OR geode\* OR geomat\* OR cartograph\* OR surveying OR cadastral\* OR hydrograph\*)

of mapping sciences journals by country shows that most countries (20) publish one or two mapping sciences journals, while 8 countries publish between three and seven. Among the latter are countries with a long tradition of research in the area of mapping sciences: France, The Netherlands and United Kingdom. Three countries are prominent for the high number of mapping sciences journals published: Poland has 10, the USA has 14, and Germany has 16 (Table 1).

**Table 1.** Distribution of mapping sciences journals by country

Country	No. of journals	Country	No. of journals
Australia	1	Croatia	2
Greece	1	India	2
Republic of South Africa	1	Italy	2
Lithuania	1	China	2
Norway	1	Russia	2
Republic of Korea	1	Serbia	2
Slovenia	1	Finland	3
Spain	1	Japan	3
Sweden	1	Canada	3
Thailand	1	Hungary	3
Czech Republic	1	Switzerland	4
Slovak Republic	1	The Netherlands	6
Bosnia and Herzegovina	2	United Kingdom	6
Austria	2	France	7
Brazil	2	Poland	10
		USA	14
		Germany	16

Some mapping sciences journals publish articles in several languages within the same issue, particularly if the native language is not spoken widely outside the country. Frequently, publishers provide papers in English on top of papers in native language. The language next to the name of the journal in Appendix 1 refers to the primary language of the journal, i.e. the language in which most articles are published. Distribution by language shows that eight languages are represented by only one journal, and a further eight languages are represented by two journals. Three journals are published in Croatian, four in Polish, seven in French, 15 in German and 53 in English (Table 2). Among all 105 mapping sciences journals, only the Croatian journal *Kartografija i geoinformacije* (*Cartography and Geoinformation*) is published bilingually in Croatian and English. On the other hand, some journals do not provide even titles or

abstracts in English, and their strong regional orientation is very obvious.

**Table 2.** Distribution of journals by language

Language	No. of journals	Language	No. of journals
Bosnian	1	Dutch	2
Finnish	1	Portuguese	2
Chinese	1	Russian	2
Korean	1	Serbian	2
Norwegian	1	Italian	2
Slovenian	1	Hungarian	2
Spanish	1	Croatian	3
Swedish	1	Polish	4
Czech	1	French	7
Slovak	1	German	15
Japanese	2	English	53

Of the 105 journals, 44 are in open access and 60 are available only through sales, while we were unable to determine the accessibility of the entire texts of one journal due to our lack of knowledge of the language. Several journals provide a selection of papers which are open access, while subscriptions are required in order to access other contents. Open access journals are providing access to the full-text of all published articles, often in PDF. Some open access journals provide a digital version of each issue (as a single PDF file), though most provide articles as separate files. In this paper, we have not attempted to investigate the business model beyond open access, i.e. whether authors themselves pay to be published, or whether sponsorship and other methods are used (membership fees, government subsidies, grants from associations, universities, etc.). Poland publishes the largest number of open access journals (7), followed by The Netherlands (5) and Finland (3), and it is noticeable that most countries on the so-called peripheries of science provide open access to their journals (Croatia, Bosnia and Herzegovina, Slovenia, Serbia, India, Brazil and Hungary), in an attempt to raise their visibility, readerships and impact. Both Croatian journals, *Geodetski list* and *Kartografija i geoinformacije* are available on HRČAK (URL 14), the Croatian open access portal for scientific and professional journals. There are noticeable differences between the more developed countries, so that in contrast to The Netherlands and Finland, which provide open access to most of their journals, only one is open access in France, and only 4 of the 16 German journals are in open access. Two German

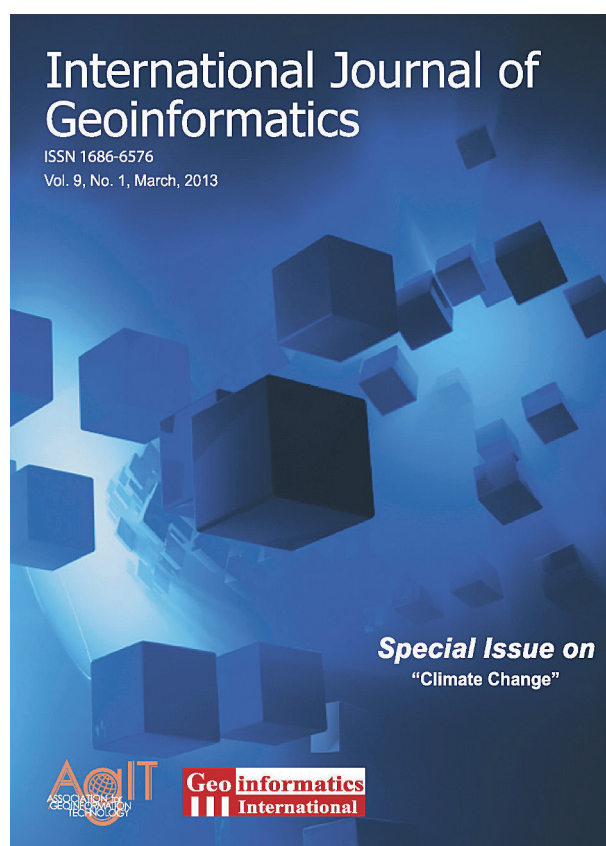
primarni jezik časopisa, tj. na jezik većine objavljenih radova. Distribucija po jezicima pokazuje da je osam jezika zastupljeno s jednim časopisom, osam jezika zastupljeno je s po dva časopisa, na hrvatskom jeziku objavljuje se 3, poljskom 4, francuskom 7, njemačkom 15, a na engleskom 53 časopisa (tablica 2). Među 105 geodetskih časopisa hrvatski *Kartografija i geoinformacije* jedini objavljuje sve tekstove dvojezično – na hrvatskom i engleskom. S druge strane dio časopisa ne objavljuje čak ni naslove i sažetke na engleskom jeziku te možemo primijetiti njihovu snažnu regionalnu orijentaciju.

Tablica 2. Distribucija časopisa po jezicima

Jezik	# časopisa	Jezik	# časopisa
bosanski	1	nizozemski	2
finski	1	portugalski	2
kineski	1	ruski	2
korejski	1	srpski	2
norveški	1	mađarski	2
slovenski	1	talijanski	2
španjolski	1	hrvatski	3
švedski	1	poljski	4
češki	1	francuski	7
slovački	1	njemački	15
japanski	2	engleski	53

Od 105 geodetskih časopisa njih 44 je u otvorenom pristupu, 60 časopisa je na raspolaganju isključivo uz plaćanje, a za jedan časopis nismo mogli ustanoviti raspoloživost cjelovitih tekstova zbog nepoznavanja jezika. Nekoliko časopisa nudi samo neke radove u otvorenom pristupu, dok se za pristup ostalim sadržajima traži pretplata. Kod časopisa u otvorenom pristupu čitateljima su na raspolaganju cjeloviti tekstovi radova, najčešće u PDF-u. Neki časopisi u otvorenom pristupu nude digitalne inačice cijelih sveščića svojih časopisa (kao jednu PDF datoteku), a većina nudi radove kao zasebne datoteke. U ovom radu nismo istraživali narav otvorenog pristupa, tj. plaćaju li autori za objavljivanje radova ili časopisi osiguravaju sponzorstvo na drugačije načine (članarine, potpore iz vladinih fondova, potpore udruga, sveučilišta i sl.). Najviše časopisa u otvorenom pristupu nude Poljska (7), Nizozemska (5) i Finska (3), a primjetno je da većina zemalja iz tzv. znanstvene periferije nude svoje časopise u otvorenom pristupu (Hrvatska, Bosna i Hercegovina, Slovenija, Srbija, Indija, Brazil, Mađarska) nastojeći postići vidljivost, čitanost i utjecaj svoje znanstvene publicistike. Oba hrvatska časopisa, *Geodetski list* i *Kartografija i geoinformacije* nalaze se u otvorenom

pristupu na portalu hrvatskih znanstvenih i stručnih časopisa u otvorenom pristupu HRČAK (URL 14). Primjetne su razlike i među razvijenim zemljama, pa tako, za razliku od Nizozemske i Finske koje gotovo sve svoje časopise nude u otvorenom pristupu, od 7 francuskih časopisa samo 1, a od 16 njemačkih samo su 4 u otvorenom pristupu. Dva njemačka časopisa, *LSA VERM - Zeitschrift für das Öffentliche Vermessungswesen des Landes Sachsen-Anhalt* i *Mitteilungen des DVW-Bayern e.V.* nude samo pojedine radove u otvorenom pristupu. Unutar objavljenih sveščića časopisa *LSA VERM - Zeitschrift für das Öffentliche Vermessungswesen des Landes Sachsen-Anhalt* obično je jedan rad na raspolaganju s cjelovitim tekstom, dok za ostale radove nisu na raspolaganju niti sažeci radova.



Kod časopisa raspoloživih uz plaćanje primjećujemo različite razine (ne)moćnosti pristupa cjelovitim tekstovima radova. Od 60 časopisa na koje je potrebno pretplatiti se da bi se pristupilo cjelovitim tekstovima radova dva časopisa nemaju uopće web-stranicu, a devet časopisa nudi web-stranicu samo s najosnovnijim informacijama o časopisu, tj. njegovoj tiskanoj inačici. Znan broj časopisa nudi samo naslove radova na izvornom jeziku (npr. *The Portolan*, *Géomatique Expert*, *Information Bulletin* i dr.), a samo dio uz naslov nudi i sažetak rada (npr. *Caert Thresoor*, *Cartographica Helvetica*, *Flächenmanagement und Bodenordnung*, *Geodeticky a kartograficky obzor* i dr.).

journals (*LSA VERM - Zeitschrift für das Öffentliche Vermessungswesen des Landes Sachsen-Anhalt* and *Mitteilungen des DVW-Bayern e.V.*) provide only selected articles without charge. *LSA VERM - Zeitschrift für das Öffentliche Vermessungswesen des Landes Sachsen-Anhalt* usually makes one full article per issue freely available, while not even abstracts of the other articles are provided.

Subscription based journals display different levels of availability, or non-availability of full-texts. Of the 60 journals for which subscriptions are required in order to access full-texts, two do not have websites at all, and nine have websites giving only the most basic information about the journal, i.e. its printed version. A large number of journals give the titles of articles in the original language only (e.g. *The Portolan*, *Géomatique Expert*, *Information Bulletin* and others), while some give the titles and abstracts (e.g. *Caert Thresoor*, *Cartographica Helvetica*, *Flächenmanagement und Bodenordnung*, *Geodetsky a kartograficky obzor* and others). *Bollettino della Associazione Italiana di Cartographia* gives the table of contents without the abstracts, as separate MS Word files for each issue, but only up to 2010, although there have been later issues published. *Bulletin du Comité Français de Cartographie* provides table of contents without the abstracts, while users can ask for full-texts through web forms under unknown conditions. This journal has an unusual practice of publishing serially numbered issues (at the time of this research, there had been 211), so it is difficult to ascertain the year of publication.

Today, the minimum standard in journal online publishing is the provision of the table of contents, titles and abstracts in the original language and in English. Even publishers whose main aim is to turn a profit provide open access to the table of contents of published issues, including abstracts. We also noticed (though this was not the topic of our research) the low standard of design and layout of journal websites, particularly those attached to professional associations. Although annual subscriptions for mapping sciences journals are relatively cheap, they should provide online table of contents accompanied by information on editorial policies.

Some mapping sciences journals have not adapted well to the web environment, as can be seen from their URLs. The Czech journal *Geodetsky a kartograficky obzor*, for example, has an URL address which is impossible to remember and therefore quite impractical in terms of promoting the journal and raising its visibility (URL 15). The same is true of *Geodetski žurnal* (URL 16), *Marine Geodesy* (URL 17), *Topographia y Cartographia* (URL 18) and others, whose URLs tell us nothing about which journal they represent, unless the link is followed. There are also examples of good URL addresses such as of *Association of*

*Canadian Map Libraries and Archives Bulletin* (URL 19), *BIM-CC newsletter / Brussels International Map Collectors' Circle* (URL 20), *e-Perimetron* (URL 21), *Flächenmanagement und Bodenordnung* (URL 22), *Geodetska služba* (URL 23), *Geodetski list* (URL 24), *Geo-Info* (URL 25), etc.

Some journals were not included in the corpus, although they publish articles in the area of mapping sciences, for various reasons. We discovered that the last issues of *Cartouche*, *Coordinates: Series A and B*, *Geomatics and Information Science of Wuhan University* and *New Zealand Surveyor* had been published in 2010, while the last issue of the *Journal of Geospatial Engineering* was as far back as 2005. The online edition of *Portal de Cartografie* give information about the last issue, published in 2010, with a note to say that publication of the journal has been halted for an indefinite period. *IMCoS Journal*, *Maplines* and the Russian journal *Geoprofi* were not included because they do not have ISSN, which means they do not meet the minimum editorial standard for periodic publications. Some journals are only available in printed form, and information on their publication frequency was mostly found by referring to library catalogues. The Bulgarian journal *Geodezija, kartografija, zemeustrojstvo* and the French *Géomètre* were excluded from the corpus of geodetic journals because we could not access even the basic information about them.

## 6 Future Research

Future research into mapping sciences journals should be directed towards a more detailed analysis of the visibility and level of indexing of mapping sciences journals in subject-specific and multidisciplinary databases, while attention should be focused on the subject areas which describe mapping sciences journals and their degree of alignment with the scope of the journals. Further research should also focus on assessing mapping sciences journals by applying available metric indicators.

## 7 Conclusion

Defining the corpus of mapping sciences journals is a demanding task, due to terminology which is still developing and which is not yet used uniformly, the constant changes seen in the publishing world, with some journals being discontinued and other launched, and the invisibility of journals and inaccessibility of information on published works. In selecting mapping sciences journals, terminological issues meant it was necessary to consult various subject-specific and multidisciplinary databases, publishers' web sites, mapping sciences

*Bollettino della Associazione Italiana di Cartographia* na svojim web-stranicama nudi samo sadržaje bez sažetaka kao zasebne datoteke u MS Word formatu i to samo do 2010. godine, iako postoje i kasnije izdani svešćići. *Bulletin du Comité Français de Cartographie* nudi na svojim web-stranicama sadržaje bez sažetaka, dok se cjeloviti tekst mora zatražiti preko web-obrazaca pod nepoznatim uvjetima. Časopis ima neuobičajen način izlaženja u obliku kontinuirano numeriranih svešćića (u vrijeme istraživanja zadnji raspoloživi svešćić je bio 211), za koje je nejasno godište izlaženja.

Sadržaj časopisa na web-stranicama, uključujući naslov i sažetak na izvornom i engleskom jeziku, danas odražava minimum izdavačkog standarda. Čak i isključivo profitno orijentirani izdavači nude otvoreni pristup sadržajima objavljenih brojeva, uključujući sažetke radova. Također je uočen, iako to nije bila tema istraživanja, nizak standard dizajna i preglednosti mrežnih mjesta časopisa, posebice onih pri strukovnim udrugama. Iako su cijene pretplate geodetskih časopisa relativno niske, časopis bi morao nuditi online sadržaj, popraćen informacijama o uređivačkoj politici.

Koliko su neki geodetski časopisi ostali neprilagodeni umreženom prostoru pokazuju i URL adrese časopisa, npr. češki časopis *Geodetický a kartografický obzor* ima URL adresu koja nije pamtljiva niti je praktična za isticanje i promociju časopisa (URL 15), a slični su primjeri časopisa *Geodetski žurnal* (URL 16), *Marine Geodesy* (URL 17), *Topographia y Cartographia* (URL 18) i dr., iz kojih ne možemo razaznati o kojim je časopisima riječ, osim ako slijedimo poveznicu. Dobri su primjeri URL adrese časopisa *Association of Canadian Map Libraries and Archives Bulletin* (URL 19), *BIMCC newsletter / Brussels International Map Collectors' Circle* (URL 20), *e-Perimtron* (URL 21), *Flächenmanagement und Bodenordnung* (URL 22), *Geodetska služba* (URL 23), *Geodetski list* (URL 24), *Geo-Info* (URL 25) i dr.

Dio časopisa nije ušao u korpus, iako objavljuju radove iz područja geodezije, zbog različitih razloga. Tako smo za časopise *Cartouche*, *Coordinates: Series A i B*, *Geomatics and Information Science of Wuhan University* i *New Zealand Surveyor* pronašli zadnje brojeve iz 2010., a za časopis *Journal of Geospatial Engineering* davne 2005. Na mrežnim stranicama časopisa *Portal de Cartografia* prisutni su podaci o zadnjem objavljenom broju iz 2010., uz napomenu da je izdavanje časopisa obustavljeno na neodređeno vrijeme. Časopise *IMCoS Journal*, *Maplines* i ruski *Geoprofi* nismo uvrstili u korpus zbog neposjedovanja ISSN-a, što spada u minimum uređivačkog standarda periodičnih publikacija. Neki časopisi izlaze isključivo u tiskanom obliku, a informacije o učestalosti izlaženja pronalazili smo najčešće u katalozima knjižnica. Bugarski časopis *Geodezija, kartografija, zemeustrojstvo* i francu-

ski *Géomètre* nismo uvrstili u korpus geodetskih časopisa jer ni na koji način nismo mogli doći do osnovnih informacija o njima.



## 6. Buduća istraživanja

Buduća istraživanja geodetskih časopisa treba svakako usmjeriti prema detaljnoj analizi vidljivosti i indeksiranosti geodetskih časopisa u tematskim i višedisciplinarnim bazama podataka, pri čemu pozornost treba usmjeriti na tematska područja koja opisuju geodetske časopise i njihovu usklađenost s djelokrugom časopisa (*scope*). Daljnja istraživanja treba također usmjeriti na vrednovanje geodetskih časopisa primjenom raspoloživih metričkih pokazatelja.

## 7. Zaključak

Određivanje korpusa geodetskih časopisa zahtjevan je zadatak zbog terminologije koja se razvija i koja je još uvijek neujednačena, stalnih promjena koje se manifestiraju u prestanku izlaženja ili u pojavi novih časopisa, te nevidljivosti časopisa i nedostupnosti informacija o objavljenim radovima. Zbog terminoloških problema pri odabiru geodetskih časopisa bilo je potrebno konzultirati različite tematske i višedisciplinarne baze podataka, web-stranice izdavača, geodetske portale, kao

portals and related web resources. According to the several criteria we set, a corpus of mapping sciences journals was selected, comprising 105 journals from 31 countries, among whom the USA and Germany stand out as the countries with the highest number of mapping sciences journals, followed by Poland, Great Britain, France and The Netherlands.

About half the mapping sciences journals are published in English. The difficulty of accessing information about mapping sciences journals was surprising, as was their regional orientation and lack of adaptation to the

web environment, which offers many opportunities, particularly in publishing. A few journals did not even have a web page, or only basic information about them was available, with no details about table of contents. Although recent publishing standards take it for granted that titles and abstracts of published works, among other things, should be available, not all mapping sciences journals actually meet these standards. The fact that 44 journals are open access is an indication that editorial boards and publishers are aware of the need to make mapping sciences articles more widely available.

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- Caron, C., Roche, S., Goyer, D., Jaton, A. (2008): GIScience Journals Ranking and Evaluation: An International Delphi Study. *Transactions in GIS*, 12(3), 293–321.
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- Li, Z. (2000): Geospatial Engineering in the 21st Century. *Journal of Geospatial Engineering*, 2(1), 1.
- Salichtchev, K. A. (1966): Die kartographischen Zeitschriften der Erde. *Petermanns Geographische Mitteilungen*, 2, 147–159.
- Salichtchev, K. A. (1979): Periodical and Serial Publications on Cartography. *The Canadian Cartographer*, 16(2), 109–132.

## Mrežne adrese / URLs

- URL 1: SFU – Simon Fraser University, <http://pages.cmns.sfu.ca/heather-morrison/appendix-c-how-many-active-scholarly-peer-reviewed-journals/> (7. 5. 2012.)
- URL 2: Current Liblicence Archive, <http://listserv.crl.edu/wa.exe?A2=LIBLICENSE-L;17e4abd4.1208> (7. 5. 2012.)
- URL 3: The Imaginary Journal of Poetic Economics, <http://poeticeconomics.blogspot.com/2012/05/about-30-of-peer-reviewed-scholarly.html> (7. 5. 2012.)
- URL 4: Pravilnik o znanstvenim i umjetničkim područjima, poljima i granama iz 2009. godine, [http://narodne-novine.nn.hr/clanci/sluzbeni/2009\\_09\\_118\\_2929.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2009_09_118_2929.html) (10. 5. 2012.)

i mrežne izvore. Odabirom prema više kriterija korpus geodetskih časopisa čine 105 časopisa iz 31 zemlje, među kojima se izdvajaju Sjedinjene Američke Države i Njemačka s najvećim brojem geodetskih časopisa, te Poljska, Velika Britanija, Francuska i Nizozemska.

Približno polovica geodetskih časopisa objavljuje radove na engleskom jeziku. Iznenadila je nedostupnost podataka o geodetskim časopisima, njihova regionalna orijentacija i neprilagođenost mrežnom okruženju koje

nudi mnoge mogućnosti, posebice za izdavaštvo. Manji dio časopisa ne posjeduje web-stranice ili na njima nudi isključivo osnovne informacije o časopisu, bez uvida u objavljene sadržaje. Iako današnji uređivački standardi podrazumijevaju, među ostalim, dostupnost naslova i sažetaka objavljenih radova, taj standard ne slijede svi geodetski časopisi. Brojka od 44 časopisa u otvorenom pristupu pokazuje osviještenost uredništava i izdavača o potrebi za većom dostupnošću geodetskih sadržaja.

URL 5: Sveučilište u Zagrebu – Geodetski fakultet – O nama – Što je geodezija, <http://www.geof.unizg.hr/index.php?id=geodezija> (10. 5. 2012.)

URL 6: Zeitschriftenliste der Fachbibliothek für Geodäsie und Mathematik, Abteilung Geodäsie, TU Graz, [http://www.ub.tugraz.at/docs/abtlg\\_geo\\_zsl.pdf](http://www.ub.tugraz.at/docs/abtlg_geo_zsl.pdf) (2. 6. 2012.)

URL 7: Research Guides – Earth and Environmental Sciences (Virtual Geosciences Library), <http://guides.lib.umich.edu/content.php?pid=33932&sid=316218> (5. 6. 2012.)

URL 8: International Association of Geodesy – Geodetic Publication Series, [http://www.iag-aig.org/templates\\_img/GeodeticPublications.pdf](http://www.iag-aig.org/templates_img/GeodeticPublications.pdf) (15. 6. 2012.)

URL 9: Geodesy Section of the American Geophysical Union, Journals, <http://www.agu.org/sections/geodesy/journals.php> (20. 6. 2012.)

URL 10: Excelence in Research for Australia (ERA) – Geomatic Engineering, <http://www.research.swinburne.edu.au/researchers/publication-collections/era/journals/results.php?code=0909> (25. 6. 2012.)

URL 11: Journals and Newsletter relating to the History of Cartography, <http://www.maphistory.info/journals.html> (25. 6. 2012.)

URL 12: University Consortium for Geographic Information Science, <http://www.ucgis.org> (5. 7. 2012.)

URL 13: Acta Geodaetica et Cartographica Sinica, <http://xb.sinomaps.com/en/qkjs.asp> (10. 7. 2012)

URL 14: Hrčak – Portal znanstvenih časopisa Republike Hrvatske, <http://hrcak.srce.hr> (10. 7. 2012)

URL 15: Geodeticky a kartograficky obzor, <http://www.cuzk.cz/Dokument.aspx?PRARESKOD=998&MENUID=0&AKCE=DOC:10-GAK01> (10. 7. 2012)

URL 16: Geodetski žurnal, <http://www.sgs.org.rs/node/23> (15. 10. 2012.)

URL 17: Marine Geodesy, <http://www.tandfonline.com/loi/umgd20> (28. 10. 2012.)

URL 18: Topographia y Cartographia, <http://dialnet.unirioja.es/servlet/revista?codigo=1434> (10. 11. 2012.)

URL 19: Association of Canadian Map Libraries and Archives Bulletin, <http://www.acmla.org/bulletin.html> (10. 11. 2012.)

URL 20: BIMCC newsletter / Brussels International Map Collector's Circle, <http://www.bimcc.org/bimcc-newsletter.htm> (10. 11. 2012.)

URL 21: e-Perimetron, <http://www.e-perimetron.org/> (10. 11. 2012.)

URL 22: Flächenmanagement und Bodenordnung, <http://www.fub-online.info/> (15. 11. 2012.)

URL 23: Geodetska služba, <http://www.rgz.gov.rs/geodetska-sluzba/> (10. 11. 2012.)

URL 24: Geodetski list, <http://hrcak.srce.hr/geodetski-list> (10. 11. 2012.)

URL 25: Geo-Info, <http://www.geo-info.nl/geo-info> (15. 11. 2012.)



Appendix 1. Alphabetical list of mapping sciences journals / Prilog 1. Abecedni popis geodetskih časopisa

Ime časopisa Journal name	Print ISSN	Online ISSN	Izdavač Publisher	Zemlja Country	URL	Jezik Language	Otvoreni pristup Open access
ACSM Bulletin	0747-9417		American Congress on Surveying and Mapping	SAD USA	<a href="http://issuu.com/webmazine/docs">http://issuu.com/webmazine/docs</a>	engleski English	DA YES
Acta Geodaetica et Cartographica Sinica	1001-1595		Cehui Chubanshe	Kina China	<a href="http://xb.sinomaps.com/en/dqml.asp">http://xb.sinomaps.com/en/dqml.asp</a>	kineski Chinese	DA YES
Acta Geodaetica et Geophysica Hungarica	1217-8977	1587-1037	Akadémiai Kiadó	Mađarska Hungary	<a href="http://www.akademiai.com/content/1217-8977/">http://www.akademiai.com/content/1217-8977/</a>	engleski English	NE NO
Allgemeine Vermessungs-Nachrichten	0002-5968		Wichmann-Verlag	Njemačka Germany	<a href="http://www.wichmann-verlag.de/fachzeitschrift-avn/allgemeine-vermessungs-nachrichten.html">http://www.wichmann-verlag.de/fachzeitschrift-avn/allgemeine-vermessungs-nachrichten.html</a>	njemački German	NE NO
Applied Geomatics	1866-9298	1866-928X	Springer	Njemačka Germany	<a href="http://link.springer.com/journal/12518">http://link.springer.com/journal/12518</a>	engleski English	NE NO
Artificial Satellites	0208-841X	2083-6104	Versita	Poljska Poland	<a href="http://versita.metapress.com/content/120727/?genre=journal&amp;issn=0208-841X">http://versita.metapress.com/content/120727/?genre=journal&amp;issn=0208-841X</a>	engleski English	DA YES
Association of Canadian Map Libraries and Archives Bulletin	0840-9331		Association of Canadian Map Libraries and Archives	Kanada Canada	<a href="http://www.acmla.org/bulletin.html">http://www.acmla.org/bulletin.html</a>	engleski English	DA YES
Boletim de Ciencias Geodesicas	1413-4853	1982-2170	Universidade Federal do Paraná	Brazil Brazil	<a href="http://ojs.c3sl.ufpr.br/ojs2/index.php/bcg/">http://ojs.c3sl.ufpr.br/ojs2/index.php/bcg/</a>	portugalski Portuguese	DA YES
Bollettino della Associazione Italiana di Cartografia	0044-9733		Associazione Italiana di Cartografia	Italija Italy	<a href="http://www.associazioneanacartografia.org/">http://www.associazioneanacartografia.org/</a>	talijanski Italian	NE NO
Bulletin du Comité Français de Cartographie	0755-7647		Comité français de cartographie	Francuska France	<a href="http://www.lecf.fr/">www.lecf.fr/</a>	francuski French	NE NO
Bulletin of the Geospatial Information Authority of Japan	2185-3681		The Geospatial Information Authority of Japan (GSI)	Japan Japan	<a href="http://www.gsi.go.jp/ENGLISH/page_e30092.html">http://www.gsi.go.jp/ENGLISH/page_e30092.html</a>	engleski English	NE NO
Bulletin of the Society Cartographers	0036-1984		Society of Cartographers	Vel. Britanija UK	<a href="http://soc.org.uk/bulletin.htm">http://soc.org.uk/bulletin.htm</a>	engleski English	NE NO
Caert Thresoor	0167-4994		Barent Langenes Foundation	Nizozemska The Netherlands	<a href="http://www.caert-thresoor.nl/nederlands.html">http://www.caert-thresoor.nl/nederlands.html</a>	nizozemski Dutch	NE NO

Ime časopisa Journal name	Print ISSN	Online ISSN	Izdavač Publisher	Zemlja Country	URL	Jezik Language	Otvoreni pristup Open access
Cartes & géomatique	2119-9825	1634-3522	Comité Français de Cartographie	Francuska France	?	francuski French	NE NO
Cartographic Journal	0008-7041	1743-2774	Maney Publishing	Vel. Britanija UK	<a href="http://maneypublishing.com/index.php/journals/caj/">http://maneypublishing.com/index.php/journals/caj/</a>	engleski English	NE NO
Cartographic Perspectives	1048-9053	1048-9085	North American Cartographic International Society	SAD USA	<a href="http://www.nacis.org/">http://www.nacis.org/</a>	engleski English	DA YES
Cartographica Helvetica	1015-8480		Verlag Cartographica Helvetica	Švicarska Swiss	<a href="http://www.kartengeschichte.ch/ch/e-main.html">http://www.kartengeschichte.ch/ch/e-main.html</a>	njemački German	NE NO
Cartographica: The International Journal for Geographic Information and Geovisualization	0317-7173	1911-9925	University of Toronto Press	Kanada Canada	<a href="http://www.utpjournals.com/Cartographica.html">http://www.utpjournals.com/Cartographica.html</a>	engleski English	NE NO
Cartography and Geographic Information Science (CaGIS)	1523-0406	1545-0465	International Cartographic Association (ICA)	SAD USA	<a href="http://www.cartogis.org/publications/journal.php">http://www.cartogis.org/publications/journal.php</a>	engleski English	NE NO
Contributions to Geophysics and Geodesy	1335-2806	1338-0540	Versita	Poljska Poland	<a href="http://versita.com/cgg/">http://versita.com/cgg/</a>	engleski English	DA YES
Coordinates: A monthly magazine on positioning, navigation and beyond	0973-2136	?	Centre for Geo-Information Technologies (cGIT)	Indija India	<a href="http://mycoordinates.org/">http://mycoordinates.org/</a>	engleski English	DA YES
e-Perimtron		1790-3769	Hellenic National Centre for Maps and Cartographic Heritage	Grčka Greece	<a href="http://www.e-perimtron.org/">http://www.e-perimtron.org/</a>	engleski English	DA YES
Flächenmanagement und Bodenordnung	1616-0991		Chmielorz	Njemačka Germany	<a href="http://www.fub-online.info/">http://www.fub-online.info/</a>	njemački German	NE NO
Geo: connexion	1476-8941		GeoConnexion Ltd.	Vel. Britanija UK	<a href="http://www.geoconnexion.com/">http://www.geoconnexion.com/</a>	engleski English	NE NO
Geo-Info	1572-5464		Geo-Informatie Nederland	Nizozemska The Netherlands	<a href="http://www.geo-info.nl/geo-info">http://www.geo-info.nl/geo-info</a>	nizozemski Dutch	DA YES

Ime časopisa Journal name	Print ISSN	Online ISSN	Izdavač Publisher	Zemlja Country	URL	Jezik Language	Otvoreni pristup Open access
Geo-spatial Information Science	1009-5020	1993-5153	Wuhan University, Taylor & Francis	Kina China	<a href="http://www.tandfonline.com/loi/tgisi20">http://www.tandfonline.com/loi/tgisi20</a>	engleski English	NE NO
Geodesy and Cartography	2029-6991	2029-7009	Taylor & Francis Co-Published with Vilnius Gediminas Technical University	Litva Lithuania	<a href="http://www.tandfonline.com/toc/tgac20/current">http://www.tandfonline.com/toc/tgac20/current</a>	engleski English	NE NO
Geodesy and Cartography	2080-6736		Polish Academy of Sciences	Poljska Poland	<a href="http://www.igik.edu.pl/~geoikar/">http://www.igik.edu.pl/~geoikar/</a>	poljski Polish	DA YES
Geodetický a kartografický obzor	0016-7096		Česky úrad zeměměřický a katastrální	Češka Czech	<a href="http://www.cuzk.cz/Dokument.aspx?PRARESOD=998&amp;MENUID=0&amp;AKCE=DOC:10-GAKO1">http://www.cuzk.cz/Dokument.aspx?PRARESOD=998&amp;MENUID=0&amp;AKCE=DOC:10-GAKO1</a>	češki Czech	NE NO
Geodetska služba	1451-0561		Republički geodetski zavod Srbije	Srbija Serbia	<a href="http://www.rgz.gov.rs/geodetska-služba/">http://www.rgz.gov.rs/geodetska-služba/</a>	srpski Serbian	DA YES
Geodetski glasnik	1512-6102		Savez udruženja građana geodetske struke Bosne i Hercegovine	Bosna i Hercegovina Bosnia and Herzegovina	<a href="http://www.suggsbih.ba/GG.htm">http://www.suggsbih.ba/GG.htm</a>	bosanski Bosnian	DA YES
Geodetski list	0016-710X		Hrvatsko geodetsko društvo	Hrvatska Croatia	<a href="http://hrcak.srce.hr/geodetski-list">http://hrcak.srce.hr/geodetski-list</a>	hrvatski Croatian	DA YES
Geodetski vestnik	0351-0271		Zveza geodetov Slovenije	Slovenija Slovenia	<a href="http://www.geodetski-vestnik.com/">http://www.geodetski-vestnik.com/</a>	slovenski Slovenian	DA YES
Geodetski žurnal	1451-2602		Savez geodeta Srbije i Savez geodetskih inženjera i geomatara Srbije	Srbija Serbia	<a href="http://www.sgs.org.rs/node/23">http://www.sgs.org.rs/node/23</a>	srpski Serbian	NE NO
Geodezia es Kartografia	0016-7118		Kartografiai Vallalat	Mađarska Hungary	<a href="http://www.fomi.hu/honlap/magyar/szaklap/geodkart.htm">http://www.fomi.hu/honlap/magyar/szaklap/geodkart.htm</a>	mađarski Hungarian	NE NO
Geodezija i kartografija	0016-7126		Kartgeocentr - Geodezizdat	Rusija Russia	<a href="http://elibrary.ru/title_about.asp?id=8515">http://elibrary.ru/title_about.asp?id=8515</a>	ruski Russian	NE NO

Ime časopisa Journal name	Print ISSN	Online ISSN	Izdavač Publisher	Zemlja Country	URL	Jezik Language	Otvoreni pristup Open access
Geoinformatica	1384-6175	1573-7624	Kluwer Academic Publishers	Nizozemska The Netherlands	<a href="http://link.springer.com/journal/10707">http://link.springer.com/journal/10707</a>	engleski English	DA YES
Geoinformatics	1387-0858		CMedia B. V.	Nizozemska The Netherlands	<a href="http://www.geoinformatics.com/">http://www.geoinformatics.com/</a>	engleski English	DA YES
Geoinformation issues	1689-6440		Institute of Geodesy and Cartography, Varšava	Poljska Poland	<a href="http://www.igik.edu.pl/index.php/en/geoinformation-issues">http://www.igik.edu.pl/index.php/en/geoinformation-issues</a>	engleski English	DA YES
Geomatica	1195-1036		Canadian Institute of Geomatics	Kanada Canada	<a href="http://www.cig-acsg.ca/english/geomatica/abstracts.php">http://www.cig-acsg.ca/english/geomatica/abstracts.php</a>	engleski English	NE NO
Geomatics and Environmental Engineering	1898-1135		Akademia Gornicza-Hutniczej im. Stanisława Staszica w Krakowie	Poljska Poland	<a href="http://journals.bg.edu.pl/GEOMATICS/index.php">http://journals.bg.edu.pl/GEOMATICS/index.php</a>	engleski English	
Geomatik Schweiz = Géomatique Suisse = Geomatica Svizzera	1660-4458		Sigimedia	Švicarska Swiss	<a href="http://www.geomatik.ch/">http://www.geomatik.ch/</a>	njemački German	DA YES
Géomatique Expert	1620-4859		CiMax	Francuska France	<a href="http://www.geomag.fr/">http://www.geomag.fr/</a>	francuski French	NE NO
Geomatics Workbooks	1591-092X		Laboratorio di Geomatica - Politecnico di Milano - Polo di Como	Italija Italy	<a href="http://geomatica.como.polimi.it/workbooks/">http://geomatica.como.polimi.it/workbooks/</a>	talijanski Italian	DA YES
GIM International	1566-9076		Geomares Publishing	Nizozemska The Netherlands	<a href="http://www.gim-international.com/issues/">http://www.gim-international.com/issues/</a>	engleski English	DA YES
GIS-Business	1430-3663	1896-9391	Wichmann Verlag	Njemačka Germany		njemački German	NE NO
Globe	0311-3930		Australian and New Zealand Map Society	Australija Australia	<a href="http://www.anzmaps.org/newsletter/">http://www.anzmaps.org/newsletter/</a>	engleski English	NE NO
Globe Studies	0436-0664	1684-7091	The International Coronelli Society	Austrija Austria	<a href="http://www.coronelli.org/publikationen/globusfreund_e.html">http://www.coronelli.org/publikationen/globusfreund_e.html</a>	engleski English	NE NO

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Godišnjak Geodetskog društva Herceg-Bosne	1840-3816		Geodetsko društvo Herceg-Bosne	BiH Bosnia and Herzegovina	<a href="http://www.gdhb.ba/index.php">http://www.gdhb.ba/index.php</a>	hrvatski Croatian	DA YES
Imago Mundi	0308-5694	1479-7801	Taylor & Francis, Routledge	SAD USA	<a href="http://www.tandfonline.com/loi/rimu20">http://www.tandfonline.com/loi/rimu20</a>	engleski English	NE NO
Information Bulletin	0049-7282		Western Association of Map Libraries	SAD USA	<a href="http://www.waml.org/wmlpubs.html#IB">http://www.waml.org/wmlpubs.html#IB</a>	engleski English	NE NO
International Journal of Geoinformatics	1686-6576		Asian Institute of Technology	Tajland Thailand	<a href="http://j-geoinfo.net/">http://j-geoinfo.net/</a>	engleski English	NE NO
ISPRS International Journal of Geo-Information	2220-9964		MDPI AG	Švicarska Swiss	<a href="http://www.mdpi.com/journal/ijgi">http://www.mdpi.com/journal/ijgi</a>	engleski English	DA YES
ISPRS Journal of Photogrammetry and Remote Sensing	0924-2716		Elsevier	Nizozemska The Netherlands	<a href="http://www.sciencedirect.com/science/journal/09242716">http://www.sciencedirect.com/science/journal/09242716</a>	engleski English	DA YES
Izvestija VUZov. Geodezija i aerofotos'emka	0536-101X		MIIGAiK	Rusija Russia	<a href="http://journal.miigaik.ru/">http://journal.miigaik.ru/</a>	ruski Russian	DA YES
Journal of Applied Geodesy	1862-9016	1862-9024	Walter de Gruyter	Njemačka Germany	<a href="http://www.degruyter.com/view/j/jag">http://www.degruyter.com/view/j/jag</a>	engleski English	NE NO
Journal of Geodesy	0949-7714	1432-1394	Springer	Njemačka Germany	<a href="http://link.springer.com/journal/190">http://link.springer.com/journal/190</a>	engleski English	DA YES
Journal of Geodetic Science	2081-9919	2081-9943	Versita	Poljska Poland	<a href="http://versita.com/jgs/">http://versita.com/jgs/</a>	engleski English	DA YES
Journal of Geomatics	1007-3817		Indian Society of Geomatics	Indija India	<a href="http://www.isgindia.org/journal_of_geomatics.php">http://www.isgindia.org/journal_of_geomatics.php</a>	engleski English	NE NO
Journal of Map and Geography Libraries	1542-0353	1542-0361	Taylor & Francis	SAD USA	<a href="http://www.tandfonline.com/loi/wmg120">http://www.tandfonline.com/loi/wmg120</a>	engleski English	NE NO
Journal of Maps	e1744-5647	1744-5647	Taylor & Francis	SAD USA	<a href="http://www.tandfonline.com/loi/tjom20">http://www.tandfonline.com/loi/tjom20</a>	engleski English	NE NO

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Journal of Spatial Science	1449-8596	1836-5655	Taylor & Francis	SAD USA	<a href="http://www.tandfonline.com/loi/tjss20">http://www.tandfonline.com/loi/tjss20</a>	engleski English	NE NO
Journal of Surveying Engineering – ASCE	0733-9453	1943-5428	American Society of Civil Engineers	SAD USA	<a href="http://ascelibrary.org/toc/jsued2/">http://ascelibrary.org/toc/jsued2/</a>	engleski English	NE NO
Journal of the Geodetic Society of Japan	0038-0830		Geodetic Society of Japan	Japan	<a href="http://www.geod.jp.n.org/english/journal.html">http://www.geod.jp.n.org/english/journal.html</a>	japanski Japanese	NE NO
Journal of the Korean Society of Surveying Geodesy Photo- grammetry and Cartography	1598-4850		Korean Society of Surveying Geodesy Photogrammetry and Cartography	R. Koreja Republic of Korea	<a href="http://www.ksgpc.or.kr/">http://www.ksgpc.or.kr/</a>	korejski Corean	nepoznato unknown
Kart & Bildteknik = Mapping and Image Science	1651-792X	1651-8705	Kartografiska Sällskapet	Švedska Sweden	<a href="http://www.kartografiska.se/publikationer">http://www.kartografiska.se/publikationer</a>	švedski Swedish	DA YES
Kart og Plan	0047-3278		Fagbokforlaget	Norveška Norway	<a href="http://njkf.no/kart-og-plan/">http://njkf.no/kart-og-plan/</a>	norveški Norwegian	NE NO
Kartograficke listy	1336-5274		Cartographic Society of the Slovak Republic	Slovačka Slovakia	<a href="http://gis.fns.uniba.sk/kartografickelisty/?&amp;tl=en">http://gis.fns.uniba.sk/kartografickelisty/?&amp;tl=en</a>	slovački Slovak	NE NO
Kartografija i Geoinformacije	1333-896X	1848-0713	Hrvatsko kartografsko društvo	Hrvatska Croatia	<a href="http://hrcak.srce.hr/kig">http://hrcak.srce.hr/kig</a>	hrvatski i engleski Croatian and English	DA YES
Kartographische Nachrichten	0022-9164		Kirschbaum Verlag	Njemačka Germany	<a href="http://www.kartographische-nachrichten.de/">http://www.kartographische-nachrichten.de/</a>	njemački German	NE NO
LSA VERM - Zeitschrift für das Öffentliche Vermessungs- wesen des Landes Sachsen-Anhalt	1435-2338		Landesaamt für Verme- sung und Geoinformation Sachsen-Anhalt	Njemačka Germany	<a href="http://www.lvermgeo.sachsen-anhalt.de/de/veroeffentlichungen/lisa_verm/main.htm">http://www.lvermgeo.sachsen-anhalt.de/de/veroeffentlichungen/lisa_verm/main.htm</a>	njemački German	NE NO
M@ppemonde	1769-7298		Maison de la géographie	Francuska France	<a href="http://mappemonde.mgm.fr/">http://mappemonde.mgm.fr/</a>	francuski French	DA YES
Maanmittaus	0047-5319		Helsinki, Valtioneuvoston kirjapaino	Finska Finland	<a href="http://mts.fgi.fi/maanmittaus/numerot.htm">http://mts.fgi.fi/maanmittaus/numerot.htm</a>	finski Finnish	DA YES

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Map : Journal of the Japan Cartographers Association	0009-4897		Japan Cartographers Association	Japan	<a href="http://www.jmc.or.jp/gakkai/index_e.html">http://www.jmc.or.jp/gakkai/index_e.html</a>	japanski	NE NO
Marine Geodesy	0149-0419	1521-060X	Taylor & Francis	SAD USA	<a href="http://www.tandfonline.com/loi/umgd20">http://www.tandfonline.com/loi/umgd20</a>	engleski	NE NO
Mitteilungen der DVW-Landesvereine Hessen e.V. und Thüringen e.V.	0949-7900		DVW Hessen und Thüringen	Njemačka Germany	<a href="http://www.dvw-thueringen.de/">http://www.dvw-thueringen.de/</a>	njemački	DA YES
Mitteilungen des DVW-Bayern e.V.	1613-3064		DVW Landesverein Bayern	Njemačka Germany	<a href="http://www.dvw-bayern.de/modules.php?name=wirueberuns&amp;pa=showpage&amp;pid=18">http://www.dvw-bayern.de/modules.php?name=wirueberuns&amp;pa=showpage&amp;pid=18</a>	njemački	NE NO
Mitteilungen des DVW-Landesvereins Baden-Württemberg	0940-2942		DVW Landesvereine Baden-Württemberg	Njemačka Germany	<a href="http://www.dvw-baden-wuerttemberg.de/modules.php?name=wirueberuns&amp;pa=showpage&amp;pid=18">http://www.dvw-baden-wuerttemberg.de/modules.php?name=wirueberuns&amp;pa=showpage&amp;pid=18</a>	njemački	NE NO
Nachrichten aus dem öffentlichen Vermessungswesen	1863-4176		Innenministerium des Landes Nordrhein Westfalen	Njemačka Germany	<a href="http://www.bezreg-koeln.nrw.de/brk_internet/presse/druckschriften/noev/index.html">http://www.bezreg-koeln.nrw.de/brk_internet/presse/druckschriften/noev/index.html</a>	njemački	DA YES
Nachrichten der Niedersächsischen Vermessungs- und Katasterverwaltung	0487-5370		Niedersächsische Vermessung und Katasterverwaltung	Njemačka Germany	<a href="http://www.gl.niedersachsen.de/portal/live.php?navigation_id=10639&amp;article_id=50449&amp;_psmand=34">http://www.gl.niedersachsen.de/portal/live.php?navigation_id=10639&amp;article_id=50449&amp;_psmand=34</a>	njemački	NE NO
Nordic J of Surveying and Real Estate Research	1459-5877		The Finnish Society of Surveying Sciences	Finska Finland	<a href="http://ojs.tsv.fi/index.php/njs/issue/archive">http://ojs.tsv.fi/index.php/njs/issue/archive</a>	engleski	DA YES
Österreichische Zeitschrift für Vermessung und Geoinformation	1605-1653		Österreichische Gesellschaft für Vermessung und Geoinformation	Austrija Austria	<a href="http://www.ovg.at/index.php?id=2146">http://www.ovg.at/index.php?id=2146</a>	njemački	NE NO
Photogrammetric Engineering and Remote Sensing	0099-1112		American Society of Photogrammetry and Remote Sensing	SAD USA	<a href="http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html">http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html</a>	engleski	DA YES
Photogrammetric Journal of Finland	0554-1069		The Finnish Society of Photogrammetry and Remote Sensing	Finska Finland	<a href="http://foto.hut.fi/seura/pjf.html">http://foto.hut.fi/seura/pjf.html</a>	engleski	DA YES

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Photogrammetric Record	0031-868X		Remote Sensing and Photogrammetry Society	Vel. Britanija UK	<a href="http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1477-9730">http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1477-9730</a>	engleski English	NE NO
Photogrammetrie, Fernerkundung, Geoinformation	1432-8364		Schweizerbart Science Publishers	Švicarska Swiss	<a href="http://www.schweizerbart.de/journals/pfg">http://www.schweizerbart.de/journals/pfg</a>	engleski English	NE NO
Polski Przegląd Kartograficzny	0324-8321		Polskie Towarzystwo Geograficzne. Oddział Kartograficzny	Poljska Poland	<a href="http://ppk.net.pl/akcja1.php?rok=2012&amp;number=3">http://ppk.net.pl/akcja1.php?rok=2012&amp;number=3</a>	poljski Polish	NE NO
Portolan, The	1096-1925		Washington Map Society	SAD USA	<a href="http://home.earthlink.net/~docktor/portolan.htm">http://home.earthlink.net/~docktor/portolan.htm</a>	engleski English	NE NO
Professional Surveyor Magazine	0278-1425		Flatdog Media, Inc.	SAD USA	<a href="http://www.profsurv.com/magazine/archives.aspx">http://www.profsurv.com/magazine/archives.aspx</a>	engleski English	DA YES
Przegląd geodezyjny	0033-2127		Stowarzyszenia Geodetow Polskich	Poljska Poland	<a href="http://www.sigma-not.pl/rocznik-2012-50-przeglad-geodezyjny.html">http://www.sigma-not.pl/rocznik-2012-50-przeglad-geodezyjny.html</a>	poljski Polish	NE NO
Publication in Geomatics = Geomatikai Közlemények	1419-6492		Geodetic and Geophysical Institute, Hung. Acad. Sci	Mađarska Hungary	<a href="http://geomatika.ggki.hu/kozlemenyek/en/index.php">http://geomatika.ggki.hu/kozlemenyek/en/index.php</a>	mađarski Hungarian	DA YES
Reports on Geodesy	0867-3179		Warsaw Univ. of Technology Fac. of Geodesy and Cartogr.	Poljska Poland	<a href="http://www.rog.gig.pw.edu.pl/">http://www.rog.gig.pw.edu.pl/</a>	engleski English	DA YES
Revista Brasileira de Cartografia	0560-4613	1808-0936	Sociedade Brasileira de Cartografia, Geodesia, Fotogrameria, e Sensoriamento Remoto	Brazil Brazil	<a href="http://www.rbc.ufrrj.br/">http://www.rbc.ufrrj.br/</a>	portugalski Portuguese	DA YES
Revue Francaise de Photogrammetrie et de Teledetection	1768-9791		Société Française de Photogrammétrie et de Télédétection	Francuska France	<a href="http://www.sfpt.fr/">http://www.sfpt.fr/</a>	francuski French	NE NO
Revue Internationale de Géomatique	1260-5875		Hermes Science	Francuska France	<a href="http://geo.e-revues.com/accueil.jsp">http://geo.e-revues.com/accueil.jsp</a>	francuski French	NE NO
Roczniki Geomatyki = Annals of Geomatics	1731-5522		Polskie Towarzystwo Informatyki Przestrzennej	Poljska Poland	<a href="http://www.wiesjutra.pl/publikacje_rgeomatyki">http://www.wiesjutra.pl/publikacje_rgeomatyki</a>	poljski Polish	NE NO



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Sheetlines	0962-8207		The Charles Close Society	Vel. Britanija UK	<a href="http://www.charlesclose.org/sheetlines">http://www.charlesclose.org/sheetlines</a>	engleski English	DA YES
South African Journal of Geomatics	2225-8531		CONSAS Conference	Južnoafr. R. South African Republic	<a href="http://www.sajg.org.za/index.php/sajg/article/view/28">http://www.sajg.org.za/index.php/sajg/article/view/28</a>	engleski English	DA YES
Studia Geophysica et Geodaetica	0039-3169	1573-1626	Springer	Njemačka Germany	<a href="http://link.springer.com/journal/11200">http://link.springer.com/journal/11200</a>	engleski English	NE NO
Survey Review	0039-6265	1752-2706	Maney Publishing	Vel. Britanija UK	<a href="http://www.surveyreview.org/">http://www.surveyreview.org/</a>	engleski English	NE NO
Surveying and Land Infor- mation Science (SaLIS)	1538-1242	1559-7202	American Congress on Surveying and Mapping	SAD USA	<a href="http://www.ingentaconnect.com/content/nsp/salis">http://www.ingentaconnect.com/content/nsp/salis</a>	engleski English	NE NO
Topografía y cartografía	0212-9280		Colegio Oficial de Ingenieros Técnicos en Topografía de Madrid	Španjolska Spain	<a href="http://dialnet.unirioja.es/servlet/revista?codigo=1434">http://dialnet.unirioja.es/servlet/revista?codigo=1434</a>	španjolski Spanish	NE NO
Vermessung Brandenburg	1430-7650		Landesvermessung und Geobasisinformation Brandenburg	Njemačka Germany	<a href="http://www.geobasis-bb.de/GeoPortal1/produkte/verm_bb.htm">http://www.geobasis-bb.de/GeoPortal1/produkte/verm_bb.htm</a>	njemački German	DA YES
XYZ Revue de l'Association Française des Topographie	0290-9057		Association Française de Topographie	Francuska France	<a href="http://www.aftopo.org/FR/REVUES/revue-4-130.html">http://www.aftopo.org/FR/REVUES/revue-4-130.html</a>	francuski French	NE NO
ZfV - Zeitschrift für Geodäsie, Geoinformation und Landmanagement	1618-8950		Deutscher Verein für Vermessungswesen e.V.	Njemačka Germany	<a href="http://www.geodaesie.info/">http://www.geodaesie.info/</a>	njemački German	NE NO