

## TESTIRALI SMO ChatGPT U PISANJU SAŽETAKA

U literaturi se mogu naći tvrdnje da ljudi ne mogu razlikovati originalne sažetke od sažetaka koje piše ChatGPT. Soni i Wade (2023) zamolili su dva recenzenta (dobrovoljca) da prvo pročitaju novinski članak, potom sažetak, a zatim odluče je li sažetak generirao ChatGPT ili čovjek. Svaki je dobio po 50 sažetaka. Utvrdili su da recenzenti nisu mogli sigurno razlikovati između generiranih i ljudskih sažetaka.

Odlučili smo stoga usporediti sažetke triju članaka koje su napisali potpisnici ovoga teksta, sami ili sa suautorima, sa sažetcima koje je generirao ChatGPT. Budući da su članci napisani na engleskom jeziku, zamolili smo ChatGPT da sažetke na engleskom, za prva dva članka napiše u najviše 12 redaka, a za treći članak u najviše 15 redaka. U nastavku su bibliografski podatci triju članaka, originalni sažeci i sažetci koje je generirao ChatGPT. Nakon svakog generiranog sažetka dali smo svoj komentar.

Lapaine, M., Frančula, N.: Map Projections Classification, *Geographies*, 2, 2022, 2, 274–285, <https://www.mdpi.com/2673-7086/2/2/19/pdf>

**ABSTRACT.** Many books, textbooks and papers have been published in which the classification of map projections is based on auxiliary (developable) surfaces and projections are divided into conic, cylindrical and azimuthal projections. We argue that such a classification of map projections is unacceptable and give about twenty reasons for that. Many authors wrote in more detail about the classification of map projections and our intention is to give a new refined and rectified insight into the classification of map projections. Our approach can be included in map projection publications of general and thematic cartography. Doing this, misconceptions and unnecessary insistence on conceptuality instead of reality will be avoided.

### ChatGPT

The article discusses the classification of map projections based on developable surfaces and highlights the drawbacks of this approach. It emphasizes that most map projections cannot be constructed geometrically but are instead defined mathematically. The authors argue that the use of auxiliary surfaces leads to inaccuracies and misleading claims. They suggest a return to a more realistic and mathematical approach to map projections. The classification of map projections is then presented based on types of distortions, the shape of the graticule, and projection aspect. Conformal, equivalent, equidistant, and compromise projections are explained in terms of their distortion properties. The article aims to provide a correct and comprehensive understanding of map projections for cartography textbooks.

Smatramo da je sažetak vrlo dobar i da bi i kartografi koji pročitaju članak i oba sažetka teško mogli odlučiti koji su sažetak napisali autori, a koji je generirao ChatGPT.

Frančula, N., Lapaine, M., Župan, R., Kljajić, I., Poslončec-Petrić, V., Vinković, A., Cibilić, I.: Determining Areas from Maps, *Geodetski list*, 75 (98), 2021, 4, 365–379, <https://www.bib.irb.hr/1178695>

**ABSTRACT.** Today, when most spatial data is in digital form, polygon areas can be determined from maps made in any map projection because the digital format allows projection distortions to be eliminated during measurement. When determining areas from Google Maps and Google Earth, distortion-free values are obtained. Some GIS software (e.g. QGIS, ArcGIS online, Global Mapper) give areas on the ellipsoid as a result of the measurement. In addition, QGIS enables area calculation in the map projection of the

map without considering the projection distortion. CAD software (e.g. AutoCAD Map) and cartographic software (e.g. OCAD) as a result of the measurement give the area in the map projection without taking into account distortions caused by the projection. In each of the specified software, the area of Greenland is determined on a map downloaded from OpenStreetMap in the Web-Mercator projection. If the area is calculated in the map projection in which the map was made, even if it is an equivalent projection, the sides of the boundary polygon must be short enough so that the geodetic line can be considered as mapped as a straightline segment. In addition, projection distortions should also be considered.

## ChatGPT

Determining areas from maps is an essential task in practical geometry and land surveying. This article explores different methods and software used in geodesy and cartography to calculate areas. The authors discuss the terminology related to area determination and emphasize the importance of considering map distortions caused by projections. They provide formulas for calculating areas on an ellipsoid and describe the digitization process using a digitizer. The article also mentions studies comparing polygon areas in various equivalent projections. It highlights the availability of software such as QGIS, ArcGIS online, and Global Mapper for calculating areas on an ellipsoid. The authors explain how Google Maps, Google Earth, and QGIS can be used to measure areas accurately and free from projection distortions. Overall, the article offers insights into determining areas from maps and provides an overview of relevant software tools.

Sažetak nije dobar. Autori su u članku naglasili, a ChatGPT to nije uočio, da danas, kada sve podatke imamo u digitalnom obliku, površine možemo odrediti s karte u bilo kojoj projekciji jer digitalni format omogućuje da se pri računanju površina deformacije projekcije eliminiraju. Netočna je tvrdnja da su u članku dane formule za računanje površina na elipsoidu. To su formule za računanje površina u kartografskim projekcijama pri čemu se, ako projekcija nije ekvivalentna, deformacije površina eliminiraju. Ako površine određujemo s karata u bilo kojoj projekciji, pa i ekvivalentnoj, stranice graničnog poligona moraju biti dovoljno kratke da se može smatrati da se geodetska linija preslikala kao odsječak pravca. Ni to ChatGPT nije uočio.

Lapaine, M., Frančula, N.: Approximately Conformal, Equivalent and Equidistant Map Projections, *Journal of Geodesy and Geoinformation Science*, 5, 2022, 3, 33–40, <http://jggs.chinasmp.com/EN/10.11947/j.JGGS.2022.0304>

**ABSTRACT.** If geodetic coordinates from an ellipsoid are included in the equations of a projection for mapping a sphere instead of geographical coordinates, the result will be a projection of the ellipsoid into a plane. This will slightly change the distortion distribution of the initial map projection. The question is to what extent the replacement of geographical with geodetic coordinates will affect this change. In this paper, we deal with conformal, equal-area and equidistant projections of the sphere, which we modify by using geodetic coordinates instead of geographical ones. The result will be an approximately conformal, approximately equal-area and approximately equidistant projection. It is shown that in this case the maximum distortion of the angles in approximately conformal projections will be approximately 23.09', the maximum distortion of the area in approximately equal-area projections less than 0.7% and the maximum distortion of lengths in approximately equidistant projections less than 0.7%, therefore on the maps imperceptible.

## ChatGPT

This article explores approximately conformal, equivalent, and equidistant map projections. The authors discuss the visual interpretation of cartographic content and the need for using approximately conformal and equivalent projections to facilitate visual understanding of maps. They also consider the application of digital data in modern cartography and provide examples of using Gauss-Krüger projection for mapping the Adriatic Sea and islands. The article describes the “double” projection process used in creating the mathematical basis for Google Maps service. Mathematical formulas for calculating local linear and surface scale factors are provided. The conclusion emphasizes the importance of understanding and applying different types of projections in cartography for achieving desired visual representation and interpretation of cartographic data.

Autori već u prvoj rečenici sažetka navode da ako u formule za preslikavanje sfere umjesto geografskih koordinata uvrstimo geodetske (elipsoidne), dobit će se projekcija elipsoida u ravninu. Ovisno o tome je li projekcija konformna, ekvivalentna ili ekvidistantna dobit će se približno konformna, približno ekvivalentna ili približno ekvidistantna projekcija pri čemu su deformacije kutova u približno konformnim projekcijama, deformacije površina u približno ekvivalentnim projekcijama i deformacije duljina u približno ekvidistantnim projekcijama na kartama nezamjetljive. Sve to ChatGPT u sažetku ne navodi.

Od tri sažetka jedan je dobar, a dva nisu zadovoljavajuća. Na temelju ovog malog istraživanja možemo zaključiti da je upotreba ChatGPT-a za ozbiljno pisanje sažetaka neozbiljan poduhvat. Rezultati koje daje umjetna inteligencija, u ovom slučaju ChatGPT, mogu na prvi pogled izgledati ispravno i na taj način dovesti neupućene u zablude. U tome vidimo najveći problem upotrebe ChatGPT-a i njemu srodnih softvera koji simuliraju ljudsku komunikaciju.

## Literatura

Soni, M., Wade, V. (2023): Evaluating and Detecting ChatGPT's Responses on Abstractive Summarization, arXiv preprint arXiv:2303.17650, 2023 – arxiv.org, (19. 6. 2023.).

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