Reaching All and Every: 4K Mapping Strategies

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One of the most impactful Great Commission stories in the Bible is the parable in Luke 15 of the lost sheep, a story Jesus tells about a shepherd who leaves his ninety-nine sheep in search of one that is lost. The principle of this story—that no person is too far away nor too unimportant for salvation—is one that drives the evangelical Christian movement to reach the far corners of the globe with the gospel. Thanks to modern-day transportation, communication, and technology, it is now possible to reach every last "sheep". And, due to seemingly endless possibilities of gospel dissemination, the global body of Christ finds itself wondering, "How do we do it (reach every last sheep)? Where do we go?"

The goal of this paper is to formally present the 4K Mapping project, a geo-statistical framework designed primarily to answer the aforementioned questions—in particular, the second—of *where to go.* The key to the framework is the use of geography, since all ministry happens in a physical place, and is therefore always in some sense dependent on maps. 4K has created a map anyone can potentially contribute to and get information from at a unified, collective level.

The basic rationale of 4K Mapping is in its numeric system whereby it breaks the world map down into approximately 4,000 smaller entities called Omega Zones (the term for the geopolitical divisions used to display human needs).[1] These zones provide a framework for data to be uploaded. With this data it can become clear where workers and prayers are needed, and to help direct strategic plans for meeting physical and spiritual needs. The Omega Zone framework functions at its best when multiple agencies and organizations input their data into the program. The map can then convey a more detailed and more accurate story about the current state of the world than if each group works independently.

This paper discusses the key concepts of 4K, the taxonomy of Omega Zones, the increasing demand for and use of the 4K mapping framework, and posits that the 4K Mapping framework, when understood and utilized, can facilitate greater strategic coordination in the body of Christ.

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[1] Omega is the last letter of the Greek alphabet, and the term Omega carries rich symbolic significance in Christian mission and eschatology. Jesus identifies himself as the "Alpha and Omega" in Revelation 1:8, and in Hebrews 12:2 is called the "author and perfecter" of our faith (New American Standard Bible).

Modern Missions and Technology

William Carey (known as the father of modern missions) said, "To know the will of God, we need an open Bible and an open map" (Boehme, 2011, p. 65). Carey's understanding is still valid for modern-day missions. Especially in light of the tools that are available to us, it serves missions well to make use of the earth's socio-geographic features in order to reach the whole world with the gospel (Boehme, p. 75).

4K Mapping connects geographic strategies used by pioneers like William Carey with instruments of our present day information age. Some of the positive advances in modern-day technology are computers, digital communications, the internet, and in the case of the mission cartographer, the advent of Geographic Information Systems software, or GIS ("What is GIS?" 2016). These tools are serving present-day missionaries and all Christians concerned with sharing their faith. Obviously they are still tools and not substitutions for face-to-face gospel presentation. They help us find the lost, but they do not replace the relevance of the Holy Spirit with the believer "going" to a particular place (Boehme, 2011, p. 113). Even so, out of this technologically rich environment, the vision and framework of 4K Mapping has emerged.

4K Foundational Rationale

The 4K Mapping framework was created when its architect, University of the Nations vice-president David Hamilton, was travelling the world with his family in the year 2000, doing missions work throughout the unreached nations of the world.[2] At that time, the primary mission strategy was targeting unreached ethnolinguistic people groups (known as Unreached People Groups, or UPGs) and groups that did not have the Bible in their language (Winter, 1999).

In his encounters with local Christian workers Hamilton realized that the UPG focus was certainly necessary, as was the contiguous focus on the geographical area of the 10/40 Window, that part of the least-evangelized world stretching across Africa and Asia between the 10th and 40th latitudes north of the equator ("The 10/40 Window," 1996). At the same time it was recognized that even in evangelized nations, there are spheres of society or small geographic areas that are far less reached than those areas surrounding them. Out of a desire to reach the *all* and *every*—all people and every individual— Hamilton engineered the concept of Omega Zones: the approximately 4,000 geopolitical units of the world that make up the 4K Mapping framework (see Map 1).

The 4K initiative was founded on the conviction that the body of Christ must unite together to reach all peoples and every individual on the planet, that the Church's missional call is to go to where it is not yet established, and that in this information age, it is possible to create a new strategy with "a new approach to the use of geography" (Boehme, 2011, p. 145) that will allow us to more precisely and effectively consider where

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[2] The foundational concepts of 4K were created by David Hamilton in 2001 and are used here with his permission.

the gospel is available to the population, and where it is less available. Whether targeting unreached people groups, Bible-less languages, children, other religions, social justice issues, availability of medical care, etc.—any and all measurements of ministries, needs, and activities can be inserted and analyzed as an overlay with the Omega Zone framework.

In research and data collection, the rationale behind doing the research helps us "evaluate its integrity" (Grim, Johnson, Skirbekk, & Zurlo, 2014). In terms of 4K, the goal is to draw attention to the most unreached places. As Chan (2004) explains, "Project 4K is built upon two basic concepts. The first is breaking the world up into zones of similar population size by using geo-political divisions of the world that already exists such as countries, states, and districts rather than creating new borders. For example, one 4K zone is the country of Jamaica, while another is the district of Yavatmal in the state of Maharashtra, India. Both are similar in population size." Building on this platform of geopolitical zones with a certain uniformity of population, "the second concept is to emphasize 'unreachedness' when choosing divisions of the world" (Chan, 2004). In other words, an Omega Zone is a geopolitical division the area and shape of which is determined by population and gospel availability. Though the key factors in determining the limits of an Omega Zone are its population and gospel access, the Omega Zone concept is meant to facilitate measurement and tracking of response to a breadth of physical and spiritual human needs.

Omega Zone Definitions

Three steps were followed in creating the Omega Zones within 4K. The first step was to access a list of every nation, its population, and its level of *unreachedness*. Fortunately, the missional research organization, World Christian Database, annually publishes data online at both the national and provincial level (http://www.worldchristiandatabase.org). Using a list of 45 different types of available evangelism resources (print Bibles, TV/radio evangelism, church presence, etc.), Barrett and Johnson (2001) factored in the levels of available evangelism opportunities at the individual, people group, and national levels (p. 766), and as a result allocated every nation and province a classification of A, B, or C (p. 761).

According to Barrett and Johnson (2001), World C is "the Christian world, that of church members and professing Christians; World B—the non-Christian world that has been evangelized by Christians; and World A—the non-Christian world that has not yet been evangelized by Christians" (p. 761). These designations help indicate the amount of emphasis each geographical area should receive from the global missional community, with greater emphasis needed where less evangelization has taken place.

The above report also indicated that the least reached places are largely ignored in actual ministry activity. It indicated that "91% of all Christian outreach/evangelism targets other Christians in World C countries, cities, peoples, populations, or situations."

Additionally more troubling was the fact that "World A gets only 0.2%" of evangelistic ministry that takes place in the world (Barrett & Johnson, 2001, p. 761). Discernment and analysis of this data, as well as the intuitive on-the-ground understanding of the need for more Christian workers in World A locations, led Hamilton to incorporate the ABC classification in the development of the Omega Zone rationale (D. Hamilton, personal communication, November 6, 2015).

The second step in creating an Omega Zone was to take the list of ABC nations and provinces (updated every year by World Christian Database) and divide them into smaller units. In the logic of the 4K framework, World A, B and C nations are each ascribed a population threshold, in order to pursue greater specificity where the need is greatest.

The decision of whether or not a geographical area should be divided into multiple Omega Zones is based on the relationship between its population and its evangelical presence. Once every province in the world has had its population updated in the 4K database according to the most recent United Nations reports, it is then compared with its World ABC classification.

If a geopolitical unit is classified as World A (least-reached), its population threshold is 3 million people. In other words, no Omega Zone in a World A category is allowed to exceed 3 million in population. World B geopolitical units have a threshold of 6 million people, and World C geopolitical units have a threshold of 9 million people. Any more people in a nation (or smaller geopolitical unit as necessary, to be explained below) under each category and the geopolitical unit must be broken down into multiple Omega Zones, "thus giving these areas a heightened priority for the missionary task" (D. Hamilton, personal communication, April 2015).   The basic formula to remember when creating Omega Zones from geopolitical units is ABC-369 (see Map 2).

In the pursuit of a logical structure for missionary strategy, the 4K framework was intended to create geopolitical units of more or less equal strategic priority, to place greater emphasis on places of less evangelistic presence. In the 4K development process, previous threshold establishment attempts always seemed to yield either too many or two few Omega Zones in the world, for effective strategic development. If a mission agency strategizes only on the basis of nation-level data, strategic development is hindered by the multiplied complexities of needs, languages, gospel availability, etc. within many nations, especially ones large in population. Likewise, if an agency used the list of 3 million cities as a basis for strategy, the amount of ministries to establish would be too great to manage. After a time of prayer and what was understood to be divine inspiration, David Hamilton determined that the formula should be ABC-369. This formula led to the creation of roughly 4,000 Omega Zones, which was a good strategic balance that rested somewhere between the world's 241 countries and its 3 million cities. With the ABC-369 formula and its resulting 4,000 Omega Zones (the precise number changes as

population and evangelism data change), the task was both practically and intuitively more manageable in terms of logistics for global missions strategy. The roughly 4,000 Omega Zones create areas of both geographic size and population that give a mission strategist more realistic goals to reach.

The third and final step in Omega Zone formation was to draw the Omega Zone lines using the existing geopolitical units of each nation. Every nation in the world has various levels of administrative divisions, so as part of the Omega Zone creation process, attention must be given to individual nations and their internal boundaries. When a geopolitical unit's population grows over its ABC population threshold, it must be divided into multiple Omega Zones. The next administrative order of boundaries will then be used to determine the shapes of the new Omega Zones.

An example of a first administrative order Omega Zone would be an entire country. If a country does not exceed its ABC-369 population threshold, it does not need to be divided any further. Examples of Omega Zones that are first order administrative divisions would be Switzerland, Samoa, Monaco, and Greenland. In fact, out of the 241 nations/independent territories listed in the 4K database, 136 of those are Omega Zones that have not been divided further than their national boundaries.[3] If a nation crosses its maximum population threshold, it is then divided into Omega Zones whose shapes correspond with the next order of administrative divisions in that nation, which are generally states, provinces, or regions (see Tables 1 & 2). The current 4K database (2014) has Omega Zones in some nations dividing down as far as fourth or fifth order of administrative divisions, specifically in more densely populated areas with less gospel presence (like Beijing, China; Dhaka, Bangladesh; or Jakarta, Indonesia).

This three-step Omega Zone definition process means that there are more Omega Zones where there are, at the same time, more people and less evangelical presence. Hotspots of need can therefore be displayed on a world map to allow strategists and missionary mobilizers to know where to strategically send workers and invest resources. For example, if a mission agency had 4,000 workers to distribute evenly worldwide, it would send one worker to the evangelized state of Minnesota, USA, and in contrast send 20 workers to the unevangelized city of Dhaka, Bangladesh, with its 20 Omega Zones.

This tiered-level strategy addresses the low percentage of Christian workers present in the most needy, unevangelized parts of the world. According to Barrett and Johnson (2001), only 20 percent of documented full-time Christian workers are located in the World A and B nations, which means that over 80 percent of the world's mission workers are evangelizing in areas that are already categorized as Christian—the World C nations. According to the Omega Zone framework, though, 77 percent of the world's

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[3] Based on the Omega Zones 2013.2(a) version, published July 2014 by the 4K Mapping department.

4,175 Omega Zones are located in the World A and B nations.[4] This means that if the body of Christ actually distributed its missionary population evenly across the world's 4,175 Omega Zones, the ratio of Christian missionary presence to population would be completely reversed, and nearly 80 percent of full-time cross-cultural Christian workers would be among the less evangelized peoples of the world.

This is not a proposal to decrease the number of Christian workers in the evangelized world, but rather to increase the number of Christian workers in the unevangelized world. Additionally, as far as the 4K Mapping framework is concerned, the number of Christian workers is just one demographic factor among many to be applied. There are many more demographic statistics that could be overlaid with the 4K Omega Zones to encourage strategic mission placements and resource investment.

Omega Zone Level Research
Data can be overlaid onto an Omega Zone in two ways. The first way is to overlay pre-existing data to the Omega Zone map. This can be done at both the geographic and database levels. At the time of this writing, 4K has overlaid existing unreached people group (UPG) and Bible-less language data with our Omega Zone framework.[5] Now, when someone indicates interest in a particular unreached people group, they have access to a list of all the Omega Zones where current data indicate that particular UPG is located. If a UPG-focused ministry wants to send workers to the unengaged, unreached Khetauri people group of eastern India, the 4K team can give them a list and map displaying five Omega Zones in eastern India they could begin strategizing with and mobilizing into.[6] Conversely, someone wanting to focus on just one Omega Zone could be given a list of every people group in that particular geographic area.

While much of the work requires the researcher to input the data and statistics into the Omega Zone database by hand, the beauty of the Omega Zones being defined by existing geopolitical divisions means that statistics that have already been collected by a national census bureau, for instance, could be plugged into the 4K database with relative ease. 4K is then able to leverage all the data that has already been researched and created by other institutions and agencies because of the geopolitical divisions' interoperability.

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[4] All data results of the World ABC + Christian Worker stats by Omega Zone were calculated by the 4K department using the World Christian Database Province Data (July 2014) provided by Todd M. Johnson at Gordon-Conwell Theological Seminary and Peter Crossing at the Center for the Study of Global Christianity. These particular statistics were formed by calculating the percentage of Omega Zones that have been classified as either A or B.
[5] Public and private project maps created using data provided by the research and mapping department at International Mission Board, The Seed Company, and Wycliffe Bible Translators.
[6] People Group polygon data provided by International Mission Board (June 2014) and overlaid with 4K Omega Zone polygon version 2013.2(a).

One instance where this has been the case was in the calculation of Infant Mortality rates. In the nation of South Africa, most of the 4K Omega Zones are drawn at the province level. When Infant Mortality rates were published by UNICEF (United Nations Children's Fund) at the province-level for public use, the 4K team was able to simply plug the statistics in to the Omega Zone database because the Omega Zones of South Africa matched the province data published by UNICEF.

The second way to create data at the Omega Zone level is to do raw research and attach it to the Omega Zone database. Because the format and framework of Omega Zone boundaries is new—the 4K Mapping project was launched in 2001—it is likely the data on a specific topic does not exist at the Omega Zone level. Data from ongoing research needs to be put into the system, and only then is it available to those seeking specific information. The end-user gathers data and submits it to the 4K team, who organize, cite, and approve it for distribution to others. Eventually 4K technology may allow for a more user-driven experience (not unlike crowd-sourced data), but currently, all uploaded data to the 4K database is vetted by 4K team leadership.

As an example of this, a ministry leader had asked for a map that showed the number of French-speakers throughout the world at an Omega Zone level. This one task took a 4K team member three months to gather statistics from every nation in the world that could be displayed by Omega Zone (see Map 4).[7] Data collected for 4K Omega Zone level display can go on to serve a whole range of missional workers and leaders. In the French language case, it can provide a map to be used as a mobilization tool for any ministry in the world with a special focus on reaching the French-speaking world.

4K as a Tool for Collaboration and Prayer
In a famous reference with implications for both church unity and global missions, the Bible in John 17 quotes Jesus as praying to God that the disciples "may be perfected in unity, so that the world may know" that the Father had sent him (v. 23, NASB). This prayer suggests that the only way for the Great Commission to be completed is if the body of Christ is unified—both in spirit and in its operations (Boehme, 2011, p.58). Power in unity "is the exponential multiplication of effect that comes through working together" (Boehme, p. 57). This is one of the main areas of potential value of the 4K Mapping framework, that it provides an opportunity for believers to contribute to the same map. In fact, 4K does not work to its fullest potential unless all mission players collaborate and communicate together for its use.

Some modern-day indications of the mission-focused unity in the body of Christ are encouraging. The formation of the Table 71 partnership in 2000 has led to leaders from many major mission organizations over the past 15 years meeting together three

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[7] Map 4 shows the number of French-speakers by Omega Zone, and was researched and aggregated by 4K team researcher Jeff Rauwerdink for publication in 2012.

times a year, with a growing commitment to inter-organizational data-sharing using the 4K framework (D. Hamilton, personal communication, April 2015).

A second example of Christians working together in unity is the Call2All network (formerly known as the Global Pastor's Network) which was formed in 2007. It has brought thousands of different churches and organizations (and tens of thousands of individuals) to a few dozen congresses that have met all over the globe with the aim of reaching unreached people groups, responding to the needs of oral learners, and more. The Call2All network has been a context for engagement with 4K as a strategic tool (Hamilton, 2011) and as their website indicates Call2All uses the 4K Omega Zone framework as their primary tool for training their participants and tracking their activity ("4K Omega Zones," 2012).

A third example of unity can be found in the Pacific Wa'a partnership. As their website explains ("Pacific Wa'a Partnership," 2014), a group of Christian leaders representing a dozen different organizations have the collective aim to translate the scriptures into the 400-plus languages of the Pacific region which do not yet have any portions of the Bible in their indigenous tongue. Each separate organization contributes their skill set along with people, time, money, and data so that every mother tongue of Micronesia, Melanesia, and Polynesia will have the Bible. They do this while using the 4K framework as the base map for displaying and tracking translation activity (provided by SIL International) in the inhabited islands of the Pacific.

The power of prayer—like unity—has been an essential element in missional success since the task of spreading the gospel began (Boehme, 2011, p. 55). That 4K provides encouragement to prayer is evidenced by the focused prayer that takes place on the over-sized Omega Zone floor maps. Ranging in size from 12 feet to 200 feet, the large 4K prayer maps have been used at hundreds of events and gatherings where people from various backgrounds, denominations, and agencies have joined together to pray for every nation and Omega Zone of the world ("We Make Pretty Maps," 2016).
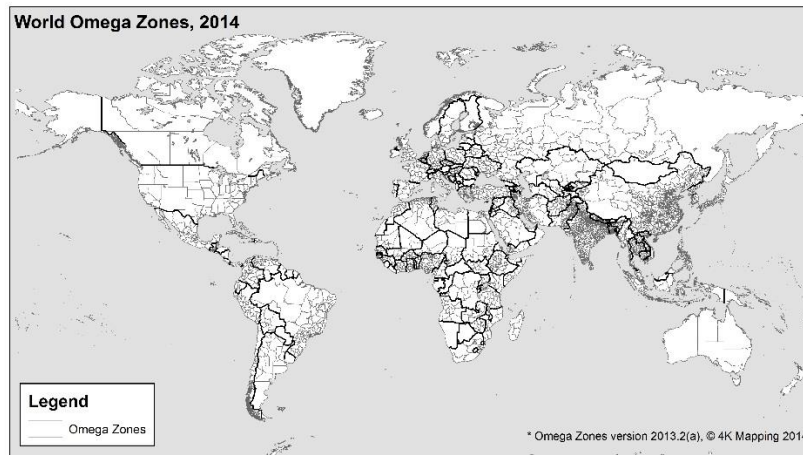
Conclusion

The range, scale, volume, and specificity of data that can be fed into the 4K Omega Zone framework is vast, as is the range of 4K's potential application to ministry activities. If specifics of the 45 ministry varieties compiled by World Christian Database were displayed according to each of the 4,000 Omega Zones, we would know which Omega Zones were still without a church, which have no printed Bibles, and where there are no evangelical TV stations. Incorporating data on physical needs could allow us to see which Omega Zones have the greatest need for artificial limbs or potable water initiatives, to take two examples. For these data grids to be available the data must first be overlaid on the map. The possibilities are endless as to the stories the 4K Omega Zone map could tell if everyone plugged their data into it.

A new age of missions is coming upon us thanks to the ever-increasing technology available in the world. Tools such as the 4K Mapping framework can help us track the progress of Great Commission activity and strategize for the future. The 4K Mapping framework can contribute toward reaching every tribe and nation with the message and love of Jesus Christ.
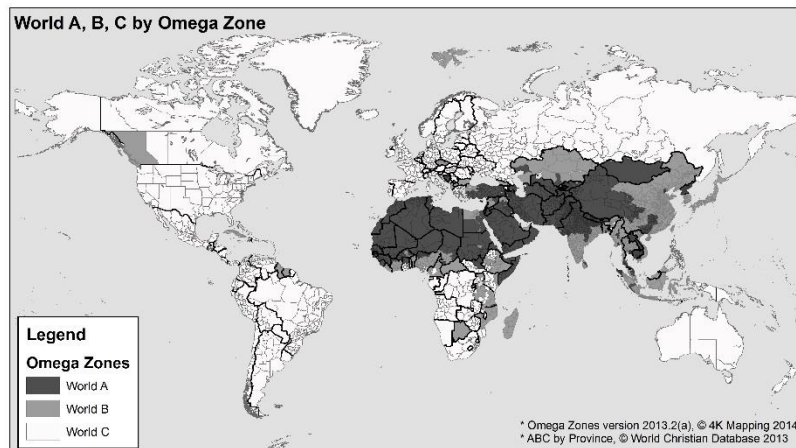
Maps and Tables

Map 1

World Omega Zones, 2014

Legend
Omega Zones

* Omega Zones version 2013.2(a), © 4K Mapping 2014

Map 2

World A, B, C by Omega Zone

Legend
Omega Zones
World A
World B
World C

* Omega Zones version 2013.2(a), © 4K Mapping 2014
* ABC by Province, © World Christian Database 2013

Table 1

Top 10 Countries with Most Omega Zones

| Country Name	# of Omega Zones
China	857
India	627
Indonesia	215
Pakistan	159
Iran	144
Bangladesh	116
Brazil	90
Russia	79
Thailand	78
USA	78

© 4K Mapping 2015, Omega Zones version 2013.2(a)

Table 2

Top 10 Provinces with Most Omega Zones

Country Name	Province	# of Omega Zones
India	Uttar Pradesh	110
China	Hebei Province	106
Indonesia	Java	106
India	Punjab	105
China	Henan Province	84
China	Shandong Province	65
Indonesia	Sumatra	64
India	Bihar	50
India	Madhya Pradesh	46
China	Sichuan Province	44

© 4K Mapping 2015, Omega Zones version 2013.2(a)

Map 3
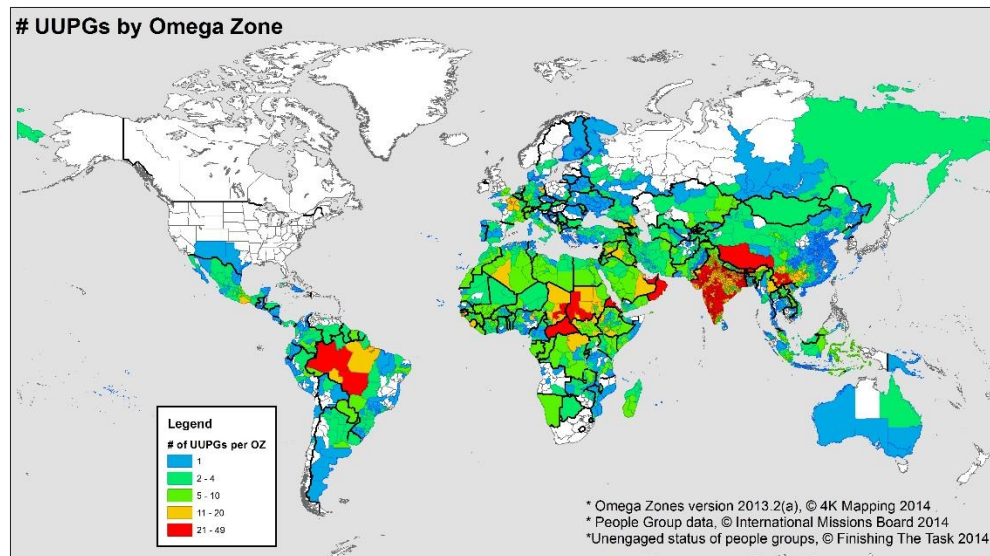
Map 4
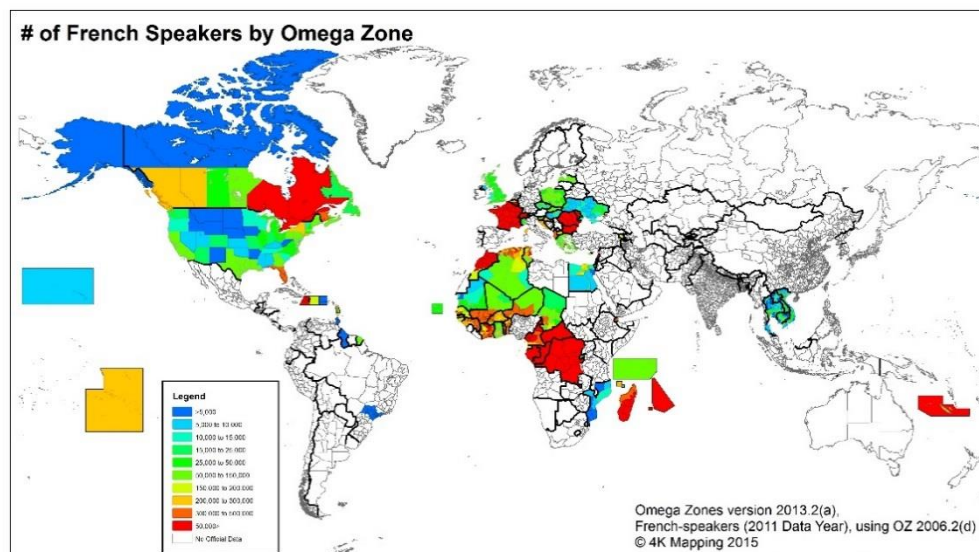
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