

Topology Analysis of International Networks Based on Debates in the United Nations

Gurciullo, Stefano; Mikhaylov, Slava

Citation for published version (Harvard):

Gurciullo, S & Mikhaylov, S 2017 'Topology Analysis of International Networks Based on Debates in the United Nations'.

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Topology Analysis of International Networks Based on Debates in the United Nations*

Stefano Gurciullo
University College London
stefano.gurciullo.11@ucl.ac.uk

Slava Mikhaylov
University of Essex
s.mikhaylov@essex.ac.uk

August 1, 2017

Abstract

In complex, high dimensional and unstructured data it is often difficult to extract meaningful patterns. This is especially the case when dealing with textual data. Recent studies in machine learning, information theory and network science have developed several novel instruments to extract the semantics of unstructured data, and harness it to build a network of relations. Such approaches serve as an efficient tool for dimensionality reduction and pattern detection. This paper applies semantic network science to extract ideological proximity in the international arena, by focusing on the data from General Debates in the UN General Assembly on the topics of high salience to international community. UN General Debate corpus (UNGDC) covers all high-level debates in the UN General Assembly from 1970 to 2014, covering all UN member states. The research proceeds in three main steps. First, Latent Dirichlet Allocation (LDA) is used to extract the topics of the UN speeches, and therefore semantic information. Each country is then assigned a vector specifying the exposure to each of the topics identified. This intermediate output is then used in to construct a network of countries based on information theoretical metrics where the links capture similar vectorial patterns in the topic distributions. Topology of the networks is then analyzed through network properties like density, path length and clustering. Finally, we identify specific topological features of our networks using the map equation framework to detect communities in our networks of countries.

Key Words: Topic modeling, network science, topology, information theory, map equation framework.

1 Introduction

A network or graph is a collection of entities, known as nodes, and a collection of relationships between nodes, known as edges or links (Wasserman and Faust, 1994). Analytically, a network can be represented as a set containing all nodes and edges, or by an adjacency square matrix with dimensions equal to the number of nodes. The matrix possesses nonzero values at the intersection of two nodes featuring a relationship.

Networks concerning relationships across words and concepts are known as semantic networks (Fellbaum, 1998). Recently, advances in textual information processing have allowed the study of relationships among entities based on extracted semantics. For example, Waumans, Nicodème and Bersini (2015) create social networks from the dialogues in the Harry Potter series. Schultz et al. (2012) provide interesting insights into public policy framing and crises by using the British Petroleum scandal as a case study. The approach has also been used to identify and analyze policy areas (see e.g. Jung and Park, 2015). At the same time, all such attempts have focused on the relationships between semantic concepts rather than on the actual actors who communicate them. Our approach aims at addressing this issue through a synergy between machine learning, information theory, and network science.

The goal of this paper is to extract and identify communities of countries based on semantic information extracted from their speeches during the United Nations annual General Debate covering the period from 1970 to 2014 (Baturu, Dasandi and Mikhaylov, 2017).¹ By doing so, we hope to

*Authors' names are listed in alphabetical order. Authors have contributed equally to all work. UN General Debate Corpus is available on the Harvard Dataverse at <http://dx.doi.org/10.7910/DVN/0TJX8Y>.

¹The UNGDC is publicly available on the Harvard Data-

set a novel methodological procedure that would help the scholarly community to better infer patterns and test hypotheses on the epistemic and ideological structures permeating political contexts. The study proceeds in three steps. First, Latent Dirichlet Allocation (LDA) is used to extract policy topics from the debates. LDA is an unsupervised machine learning method able to infer distributions of words co-occurring. Assuming that co-occurrent sets of words refer to similar conceptual spaces, we can view the resulting topics as having semantic value. Indeed, several applications of LDA show such conclusion to be valid (DiMaggio, Nag and Blei, 2013; Wang and Blei, 2011). For each year, we use LDA to extract eight topics with policy relevance, and construct a vector space featuring topic prevalences or probabilities for each country. Secondly, we harness information theory to build a metric of the similarity of the semantic information extracted from the countries' speeches. More specifically, we use the normalized mutual information coefficient to understand the extent to which a country's semantic space can be explained by the semantic space of another country. The mutual information scores are then used to build networks of countries, and their key structural and topological properties are studied over time. We observe significant shifts in such properties during the fall of the Soviet Union, suggesting that a phase transition has occurred across an epistemic and ideological context. In the final topological feature extraction step, we apply the map equation framework and its Infomap search algorithm (Rosvall and Bergstrom, 2008) to identify communities from our semantic networks. As an initial and only partial validation of our results we show that the algorithm successfully identifies a separate community consisting of Soviet Bloc countries during the Cold War.

2 Data

The United Nations General Assembly annual regular session begins with the General Debate. During the General Debate (GD) the heads of state (or high ranking officials, such as ministers of foreign affairs) deliver formal speeches on most important issues of international and domestic politics from

the perspective of their government.²

By tradition since 1947, the opening speech in GD is made by the representative of Brazil. The US representative is also typically scheduled to speak on the first day of the debate. Typically, the heads of states and governments are scheduled in the first days of GD, followed by vice-presidents, deputy prime ministers and foreign ministers, and concluding with the heads of delegation to the UN. While numbers vary session by session, on average heads of state or government comprise thirty-seven percent of speakers; vice-presidents, deputy prime ministers and foreign ministers are about fifty-six percent of speakers; and country representatives at the UN are about seven percent of all speakers.

Speeches are mostly made in native languages. However, according to the rules of the Assembly, all statements are then translated by the UN into the six official languages (Arabic, Chinese, English, French, Russian, and Spanish) and deposited at the United Nations Dag Hammarskjold Library. We collected all General Debate speeches using dedicated pages of individual UNGA General Debates and available in the UN Bibliographic Information System (UNBIS). Our text corpus contains all speeches in the same language (English). If a speech was delivered in a language other than English, we use the official English version of the speech provided by the UN. Overall, we collected 7,310 statements delivered in GD by heads of state or their representative for the period between 1970 and 2014. The number of countries participating in GD grows from 70 in 1970 to 193 in 2014 in line with the growth of UN membership. On average speeches contain 123 sentences and 945 unique words.

UN General Debate text corpus used in subsequent estimations was created from digitized UN library archives, which were converted into plain text format. Speeches made before 1992 are stored as image copies of typewritten documents, generally of very poor image quality, which requires additional preprocessing using optical character recognition software. We apply standard preprocessing of the data: stop word removal; turning all words to lower case; and removal of all numbers and non-Latin1 characters, and stemming. We also trimmed the corpus by removing all words that appear less than ten times in the corpus, and in less

verse at <http://dx.doi.org/10.7910/DVN/0TJX8Y>

²For more information on the data see Baturu, Dasandi and Mikhaylov (2017).

than five documents. This reduced the document-feature matrix from 7310×48968 to 7310×11733 . We also experimented with various trimming settings ranging between 10 and 100 ‘words’ and ‘documents’ parameters with no noticeable effect on our outcomes.

A typical country’s speech during GD covers various issues of concern in international security, development, human rights, environment, amongst others, as well as issues of regional or national concern. In fact, such a speech — often made by the heads of state and government — is not unlike the state-of-the-union legislative address that the heads of state deliver to their parliaments. In their address to the General Assembly during the GD, the heads of state or their representatives discuss the most important issues in international politics, review their national foreign policy, criticize or praise the work of the United Nations, and outline issues that need to be addressed by the international community. The most pressing domestic issues of relevance to international community are also raised during the speeches.

The GD performs a number of important functions as scholars have pointed out (see e.g. [Luard and Heater, 1994](#); [Nicholas, 1959](#); [Smith, 2006](#); [Bailey, 1960](#)). The central function is that the statements made by member states “act as a barometer of international opinion on important issues, even those not on the agenda for that particular session” ([Smith, 2006, 155](#)). This means that speeches in the GD provide governments with an opportunity to put forward their perspective and their position on a range of issues. Indeed, a central purpose of statements at the GD is for representatives to ensure that a point of view is on public record ([Bailey, 1960](#)). Furthermore, statements made at the UN GD provide one of the few opportunities for smaller and less powerful states to make their positions on various issues known to the public ([Nicholas, 1959](#); [Smith, 2006](#)). Therefore, speeches in the GD provide a key source of information on state preferences.

3 Analysis

3.1 Networks

Using the UN General Debate corpus we estimate a standard Latent Dirichlet Allocation (LDA) model ([Blei, Ng and Jordan, 2003](#)) for each year sepa-

ately. After some experimentation we specified eight topics parameter choice as that produced the most subjectively meaningful topics. From the LDA analysis we extract topic prevalences, which is a proportion of each country’s speech devoted to a given topic.

The vectors of topic prevalences that we created for each country can also be interpreted as probability distributions that describe the chances that we randomly pick a word from a country’s speech that belongs to any of the topics. Given this perspective, we can assess the similarity of two probability distributions using the mutual information (MI) measure and create a network based on this metric.

Mutual information is a measure of mutual independence of two variables, where MI of two continuous random variables is defined as:

$$I(X;Y) = \int_Y \int_X p(x,y) \log \left(\frac{p(x,y)}{p(x)p(y)} \right) dx dy,$$

where $p(x,y)$ is the joint probability density function of X and Y , and $p(x)$ and $p(y)$ are the marginal probability density functions of X and Y .

Mutual information measures how much two random variable share the information. Mutual information is zero when two variables are independent and knowing one doesn’t provide any information about the other. On the other hand, when knowing one variable determines the value of the other variable, then MI is the uncertainty contained in (or entropy of) each variable.

Here we use [Strehl and Ghosh \(2003\)](#)’s normalized variant of mutual information:

$$\frac{I(X;Y)}{\sqrt{H(X)H(Y)}},$$

where $H(X)$ and $H(Y)$ are marginal entropies. This variant of normalized mutual information ranges from 0 to 1. We build network based on important links that we define as having mutual information above a certain threshold. After some experimentation, we opted for having a threshold value of 0.8. Any link with a value lower than that has been cut. An example of the network based on the 2014 General Debate is presented in [Figure 1](#), with the full set of network visualizations presented in [Figures 3-10](#) in supplementary materials.

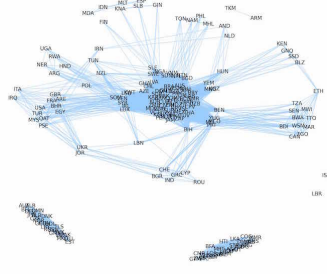


Figure 1: *Network built from topics covered in speeches by country leaders during the 2014 UNGA General Debate.* First, topics were identified using an LDA model, then utilizing the distribution of topic coverage across countries we built the network where the links between countries are identified using the mutual information measure.

3.2 Network properties

In analyzing structural properties of our networks we focused on four quantities: density; average path length; global clustering coefficient; and diameter of the network. Density (D) is the actual number of links over the total possible number in the network:

$$D = \frac{2E}{N(N-1)},$$

where E is the number of edges and denominator captures the number of possible edges. Average path length is calculated by finding the sum of shortest paths between all pairs of nodes divided by the total number of pairs. This captures the average number of steps it takes to travel from one member of the network to another. Global clustering coefficient is an average of clustering coefficients (C) for each node measured as the ratio of existing links connecting a node's neighbors to each other to the maximum possible number of such links. This is often viewed as a measure of "small world", i.e. how tightly connected are the nodes. The clustering coefficient of the i 'th node is

$$C_i = \frac{2e_i}{k_i(k_i-1)},$$

where k_i is the number of neighbors of the i 's node, and e_i is the number of connections between these

neighbors, with the maximum number of connections between neighbors being $\binom{k}{2} = \frac{k(k-1)}{2}$. Diameter of a network is the longest of all the calculated shortest paths in a network and captures the linear size of a network. Table 1 presents calculated structural properties of the networks.

Annual fluctuations in network measures suggest some potential noise, so we created 10-year moving averages of each series. The results are plotted in Figure 2.

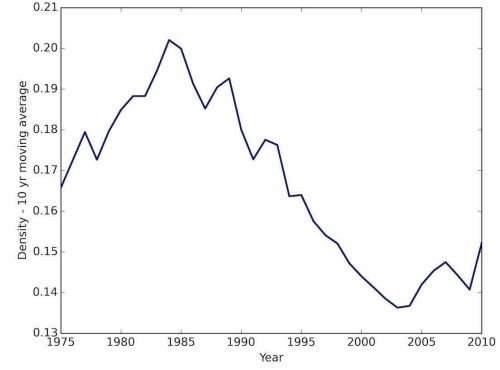
We can observe several interesting trends from network properties above. All measures undergo significant change at the time of the fall of the Soviet Union. Density peaks in 1980-90 and declines after that. This implies that, in fact, countries start to be less entangled by the topics they discuss. This is not something we would expect but it seems intuitive given the ideological constraints the Cold War imposed on the UN members and their rhetoric.

The clustering coefficient peaks around 1990 and keeps fluctuating at high levels after that. It is possible that the structure of the network underwent a phase transition, where after 1990 various epistemic communities in the network started to be more tightly connected. Even if individual countries may on average be less entangled, the communities they belong to appear to have stronger connection. In other words, more countries connect the different epistemic policy communities.

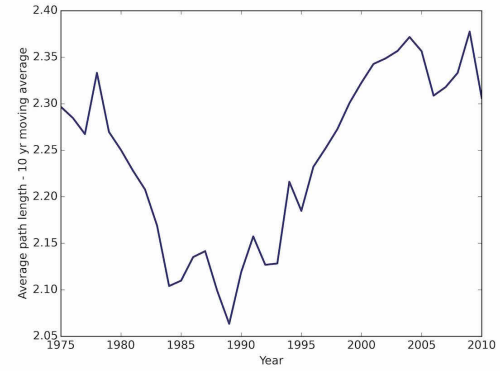
The average path length was at minimum at the fall of the Soviet Union, then it started to steadily increase, meaning that, on average, it takes more for a node to reach another node. This is in line with the decline in density.

Overall, it seems that after the Cold War the way policies were discussed at the UN changed. Our results suggest that communities of countries talking about similar issues became more neatly connected, while the overall connection in the networks increased. These may be explained by several factors. One possibility is that during the Cold War era UN was focused on smaller number of issues that were of concern to most countries. In the post-Cold War period we observe a multipolarity of the policy topics discussed by countries and also the way countries discuss them becomes much more diverse compared to the previous period. Countries may have also undergone a process of 'specialization' on policy topics, where in their speeches countries focus on some topics more than on other. For example, small island states have in-

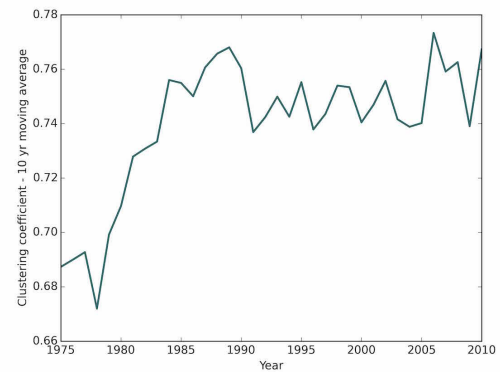
Year	Density	Average path length	Global clustering coefficient	Diameter
1970	0.18	2.09	0.76	6
1971	0.14	2.37	0.60	6
1972	0.17	2.06	0.79	6
1973	0.11	2.83	0.55	7
1974	0.20	2.09	0.67	6
1975	0.19	2.05	0.76	6
1976	0.17	2.38	0.70	7
1977	0.11	2.68	0.63	7
1978	0.21	2.02	0.75	6
1979	0.18	2.39	0.68	7
1980	0.25	1.97	0.78	6
1981	0.21	2.20	0.63	6
1982	0.10	2.72	0.58	6
1983	0.18	2.20	0.82	6
1984	0.25	1.90	0.77	6
1985	0.23	1.83	0.94	5
1986	0.17	2.18	0.72	6
1987	0.17	2.29	0.66	6
1988	0.28	1.37	0.97	5
1989	0.15	2.45	0.67	8
1990	0.16	2.23	0.74	6
1991	0.15	2.26	0.73	6
1992	0.15	2.29	0.63	6
1993	0.20	1.84	0.84	5
1994	0.13	2.46	0.70	6
1995	0.15	2.21	0.70	6
1996	0.22	1.87	0.78	6
1997	0.16	2.30	0.73	8
1998	0.15	2.25	0.90	6
1999	0.16	2.14	0.80	6
2000	0.10	2.70	0.56	6
2001	0.12	2.46	0.79	8
2002	0.13	2.50	0.73	7
2003	0.15	2.12	0.84	6
2004	0.09	2.68	0.57	7
2005	0.13	2.41	0.77	6
2006	0.19	1.93	0.87	5
2007	0.14	2.38	0.59	6
2008	0.16	2.40	0.87	6
2009	0.21	1.99	0.81	6
2010	0.13	2.22	0.89	6
2011	0.14	2.55	0.65	7
2012	0.10	2.65	0.77	8
2013	0.12	2.56	0.60	6
2014	0.21	1.96	0.85	6



Density



Average path length



Global clustering coefficient

Table 1: Basic properties of the networks calculated for each year, 1970-2014.

Figure 2: Network properties, 10-year moving averages.

creasingly discussed the issue of global warming and catastrophic climate change. At the same time, some countries have developed into brokers across various epistemic policy communities.

3.3 Community detection

It is difficult to discern any meaningful patterns from simple network graphs like Figure 1, particularly when we intend to do this systematically across different networks. We approach this problem by using a community detection method. This approach allows identification of strongly related modules that correspond to functionally important units. Here we extracted communities from our network using the map equation framework and its Infomap search algorithm (Rosvall and Bergstrom, 2008). The algorithm is designed to reveal the community structure both in weighted and directional networks by tracing the information flow along the links of the system. The outcome of the analysis is a simplified map of the network that also emphasizes structural regularities and their relationships. An example of identified communities for 1982 is presented in Table 2. The full set of community detection results is presented in Tables 3-12 in supplementary materials.

The example in Table 2 highlights communities of countries based on their rhetoric at the height of the Cold War. For example, community #5 captures most of the Soviet Bloc countries. This pattern is sufficiently consistent over the years to view it as a partial validation of the results.

The composition and interpretation of the communities is a substantively interesting question that we plan to explore in later work. At this stage it is important to note that we shouldn't expect exact overlap between Infomap communities and formal alliances. General Debate captures a mixture of sincere and strategic preferences. These are different from highly strategic voting behavior in the UN that has been shown to be associated with formal alliances (Voeten, 2000, 2013, 2004). Thus networks and communities are based on topics discussed in the debates. In its current implementation we cannot judge how these topics are discussed, which would provide additional level of differentiation between countries, but rather we capture something akin to epistemic communities.

4 Conclusion and next steps

In the current draft we performed topology analysis of networks of countries built on the semantics of their UN General Debates. We build on standard social network analysis of textual data (for a recent example see Waumans, Nicodème and Bersini, 2015) and contribute to the literature by introducing information theoretic insights at the network building stage and map equation framework at the stage of identifying topological features of our networks. At the same time our current approach is not fully satisfactory as it doesn't take into account the temporal dimension of our data (as evident from a large number of annual network figures and community tables in supplementary materials). The aspect of time here is particularly important since it taps into the institutional focus of much of political science research.

In the next stage of this project we plan to use Topological Data Analysis (TDA), which is a methodological framework for identifying topological structure in data (Carlsson, 2009). TDA builds on recent advances in computational topology that makes it possible compute topological invariants from data. One approach is persistent homology (Edelsbrunner and Harer, 2010), which captures how features in the space can become apparent under certain filtering solutions, and allows to study the homology at multiple scales at the same time. More importantly for our case, and relevant for a wider application in political science, persistent homology provides a framework to quantify the temporal development of the topology of international networks.

References

- Bailey, Sydney. 1960. *The General Assembly of the United Nations: A Study of Procedure and Practice*. Stevens.
- Baturo, Alexander, Niheer Dasandi and Slava Mikhaylov. 2017. "Understanding State Preferences with Text As Data: Introducing the UN General Debate Corpus." *Research and Politics* .
- Blei, David M, Andrew Y Ng and Michael I Jordan. 2003. "Latent dirichlet allocation." *The Journal of Machine Learning Research* 3:993–1022.
- Carlsson, Gunnar. 2009. "Topology and data." *Bulletin of the American Mathematical Society* 46(2):255–308.
- DiMaggio, Paul, Manish Nag and David Blei. 2013. "Exploiting affinities between topic modeling and the sociological perspective on culture: Application to newspaper coverage of US government arts funding." *Poetics* 41(6):570–606.
- Edelsbrunner, Herbert and John Harer. 2010. *Computational topology: an introduction*. American Mathematical Soc.
- Fellbaum, Christiane. 1998. "A semantic network of English verbs." *WordNet: An electronic lexical database* 3:153–178.
- Jung, Kyujin and Han Woo Park. 2015. "A semantic (TRIZ) network analysis of South Korea's Open Public Data policy." *Government Information Quarterly* .
- Luard, Evan and Derek Heater. 1994. *The United Nations: How it Works and What it Does*. 2 ed. New York : St. Martin's Press.
- Nicholas, Herbert George. 1959. *The United Nations as a Political Institution*. Oxford: Oxford University Press.
- Rosvall, Martin and Carl T Bergstrom. 2008. "Maps of random walks on complex networks reveal community structure." *Proceedings of the National Academy of Sciences* 105(4):1118–1123.
- Schultz, Friederike, Jan Kleinnijenhuis, Dirk Oegema, Sonja Utz and Wouter van Atteveldt. 2012. "Strategic framing in the BP crisis: A semantic network analysis of associative frames." *Public Relations Review* 38(1):97–107.
- Smith, Courtney. 2006. *Politics and Process at the United Nations: The Global Dance*. Boulder, CO: Lynne Rienner.
- Strehl, Alexander and Joydeep Ghosh. 2003. "Cluster ensembles—a knowledge reuse framework for combining multiple partitions." *The Journal of Machine Learning Research* 3:583–617.
- Voeten, Eric. 2000. "Clashes in the Assembly." *International Organization* 54(2):185–215.
- Voeten, Erik. 2004. "Resisting the lonely superpower: Responses of states in the United Nations to US dominance." *Journal of Politics* 66(3):729–754.
- Voeten, Erik. 2013. Data and Analyses of Voting in the United Nations General Assembly. In *Routledge Handbook of International Organization*, ed. Bob Reinalda. Routledge p. 54.
- Wang, Chong and David M Blei. 2011. Collaborative topic modeling for recommending scientific articles. In *Proceedings of the 17th ACM SIGKDD international conference on Knowledge discovery and data mining*. ACM pp. 448–456.
- Wasserman, Stanley and Katherine Faust. 1994. *Social network analysis: Methods and applications*. Vol. 8 Cambridge university press.
- Waumans, Michaël C, Thibaut Nicodème and Hugues Bersini. 2015. "Topology Analysis of Social Networks Extracted from Literature." *PloS one* 10(6):e0126470.

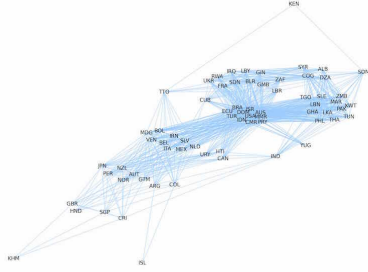
Year	Community	ISO Country Code
1982	0	AUS, AUT, BGD, BTN, COD, CYP, DNK, EGY, FIN, FJI, GBR, GRC, IDN, IND, IRL, ITA, JPN, LKA, LSO, LUX, MDV, MMR, NLD, NOR, NPL, NZL, PAK, PHL, PNG, POL, SWE, TUR, TZA, YUG
1982	1	AGO, BEL, BLZ, BOL, CHL, COG, COL, CRI, DZA, GAB, GIN, GNB, HND, MDG, PER, PRY, SGP, SUR, TGO, TUN, USA, VEN
1982	2	AFG, BEN, BHR, DDR, DJI, ETH, GRD, GUY, IRN, JAM, LBY, MAR, MOZ, NGA, SLE, SOM, STP, VCT, VNM, YDY, ZWE
1982	3	BDI, BFA, BHS, COM, CPV, HTI, IRQ, KHM, KWT, MLI, MRT, MUS, NER, SEN, TCD
1982	4	ARE, ATG, BRB, CAN, GMB, ISR, KEN, LBR, RWA, SDN, TTO, UGA, ZMB
1982	5	ALB, BGR, BLR, CSK, CUB, HUN, LAO, MNG, NIC, RUS, UKR
1982	6	BRA, ESP, FRA, MEX, SLV
1982	7	ARG, ECU, MLT, PAN
1982	8	BWA, JOR, QAT, THA
1982	9	CAF, DEU, DOM, GNQ, GTM, PRT, URY
1982	10	ISL, ROU
1982	11	CHN, YEM
1982	12	CMR, GHA, OMN
1982	13	SAU, SYR
1982	14	MYS

Table 2: *Communities in the 1982 UNGA General Debate network.* Map equation framework and Infomap search algorithm were used to identify communities.

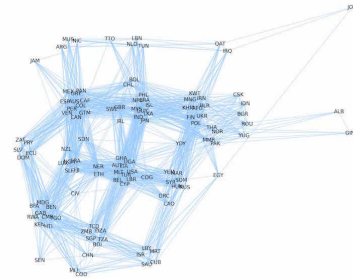
A Supplementary materials

A.1 Networks

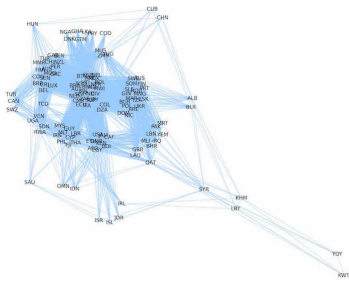
A.2 Community detection



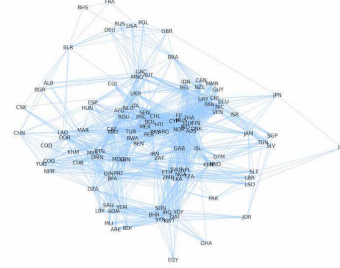
1970



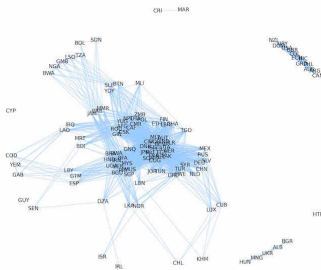
1971



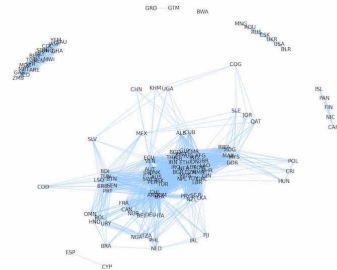
1972



1973

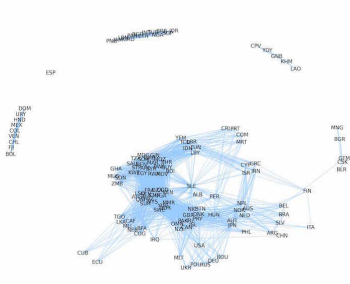


1974

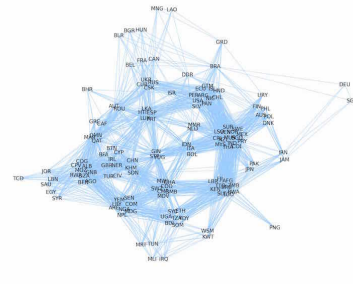


1975

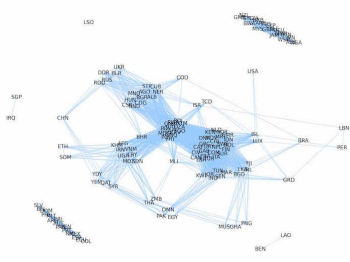
Figure 3: *Networks from speeches, 1970-1975.* Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



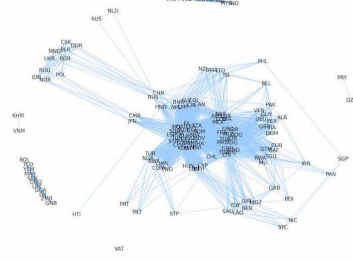
1976



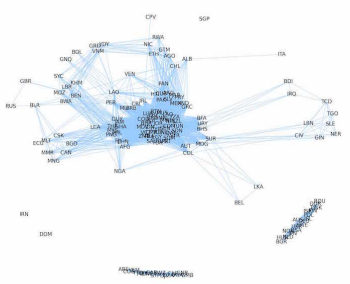
1977



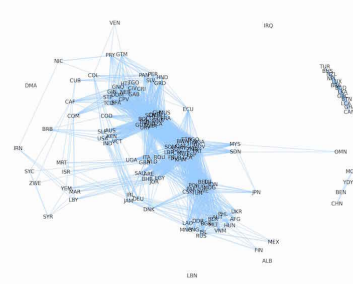
1978



1979

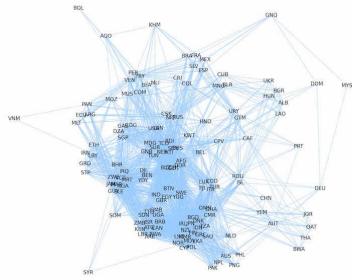


1980

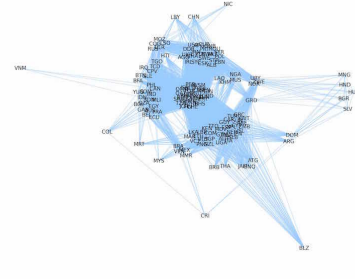


1981

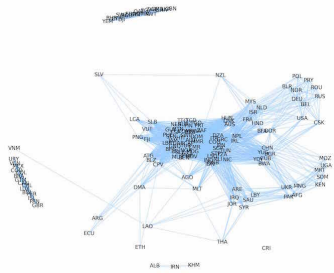
Figure 4: *Networks from speeches, 1976-1981*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



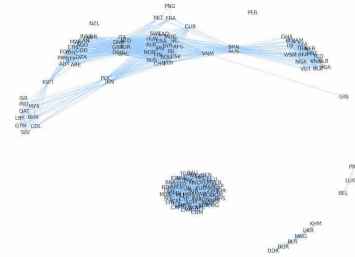
1982



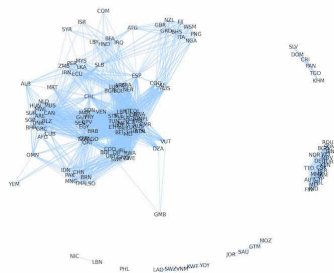
1983



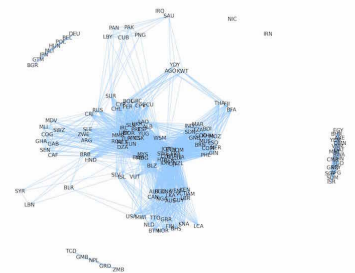
1984



1985

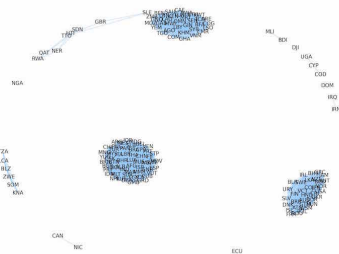


1986

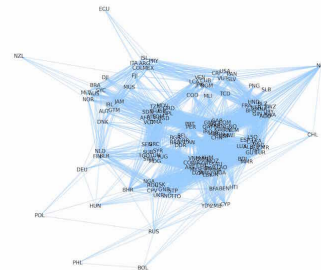


1987

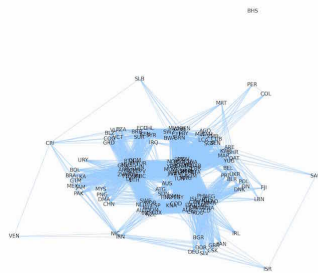
Figure 5: *Networks from speeches, 1982-1987*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



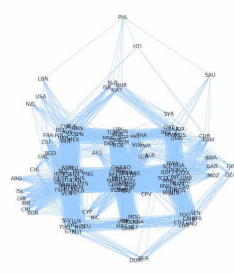
1988



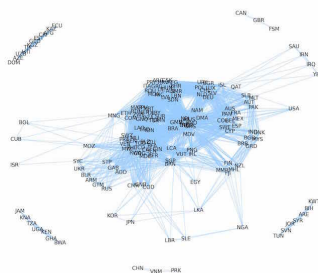
1989



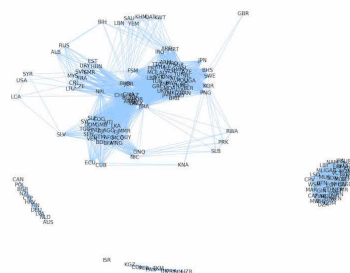
1990



1991

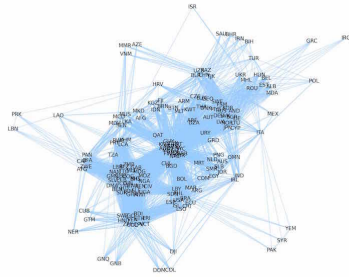


1992

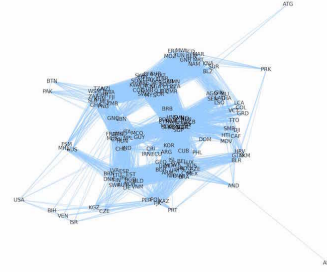


1993

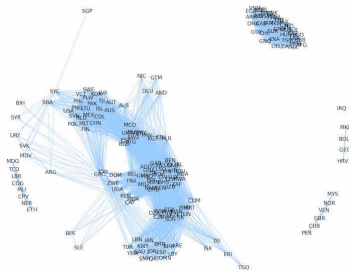
Figure 6: *Networks from speeches, 1988-1993*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



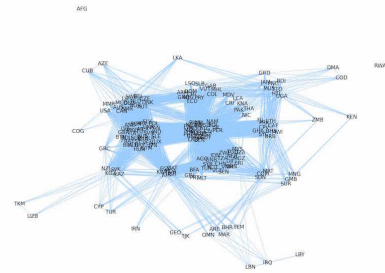
1994



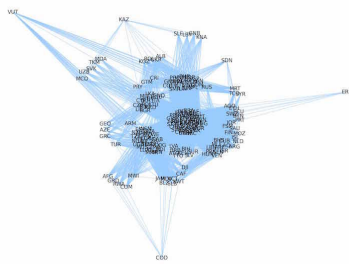
1995



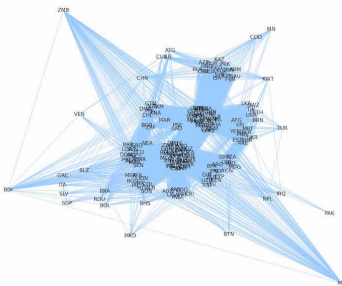
1996



1997

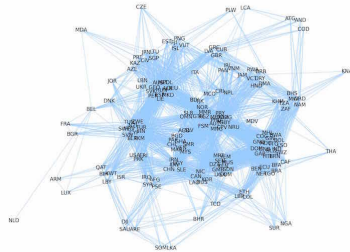


1998

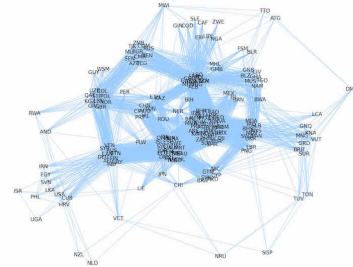


1999

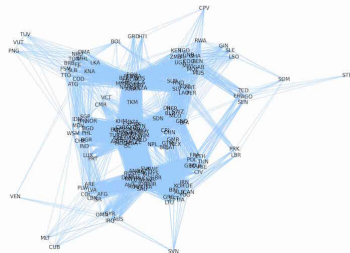
Figure 7: *Networks from speeches, 1994-1999*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



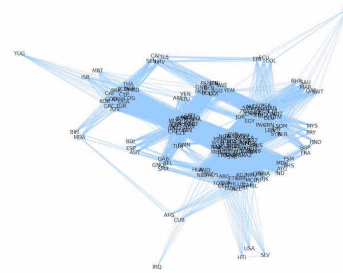
2000



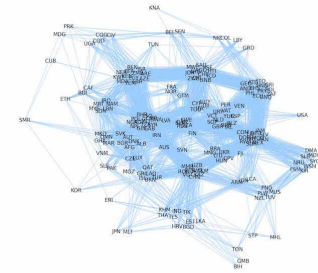
2001



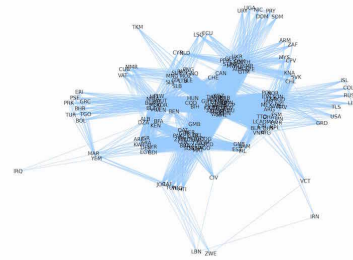
2002



2003

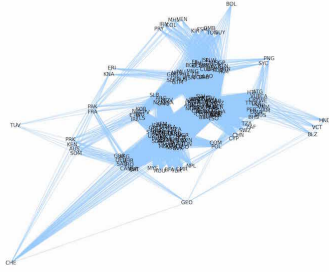


2004

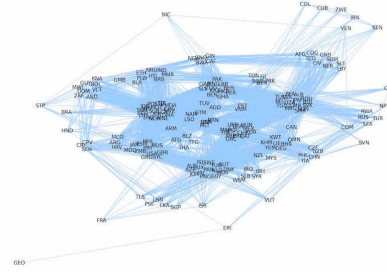


2005

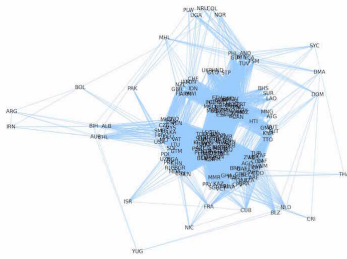
Figure 8: *Networks from speeches, 2000-2005.* Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



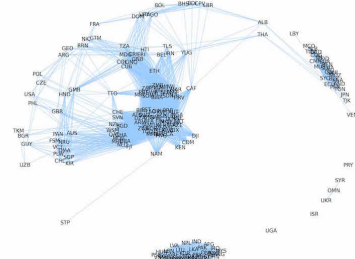
2006



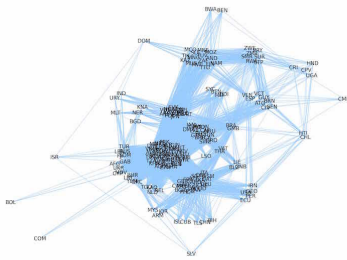
2007



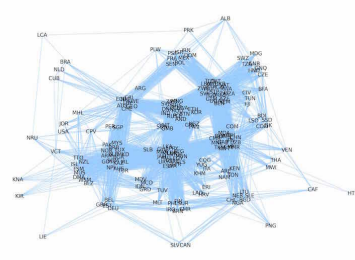
2008



2009

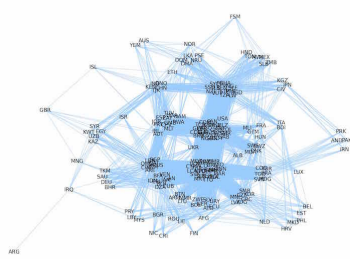


2010

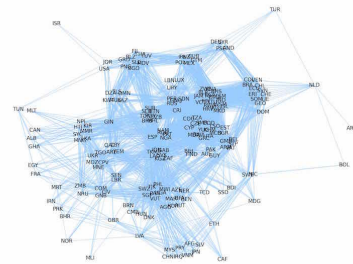


2011

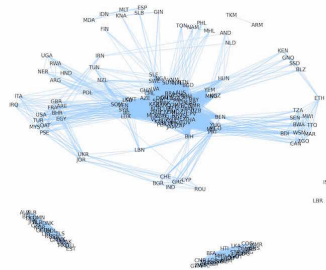
Figure 9: *Networks from speeches, 2006-2011*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.



2012



2013



2014

Figure 10: *Networks from speeches, 2012-2014*. Networks built based on topics discussed in annual UNGA General Debate speeches. Links between countries is established using normalized mutual information criteria.

Year	Community	ISO Country Code
1970	0	ALB, AUS, BLR, BRA, CMR, COG, CUB, DOM, DZA, ECU, FRA, GIN, GMB, IDN, IRQ, ISR, LBR, LBY, MMR, PRY, RWA, SDN, SOM, SYR, TTO, TUR, UKR, USA, YUG, ZAF
1970	1	GHA, KWT, LBN, LKA, MAR, PAK, PHL, SLE, TGO, THA, TUN, ZMB
1970	2	AUT, CAN, GTM, HND, HTI, IND, JPN, NOR, NZL, PER, URY
1970	3	BEL, BOL, IRN, ITA, MDG, MEX, NLD, SLV, VEN
1970	4	CRI, GBR, SGP
1970	5	ARG, COL
1970	6	ISL
1970	7	KEN
1970	8	KHM
1971	0	AUT, BEL, CUB, CYP, GBR, GHA, GRC, HUN, IRL, ISR, ITA, LAO, LBR, LBY, MAR, MLT, MRT, MUS, SAU, SOM, SWE, SYR, TUR, UGA, USA, YDY, YEM
1971	1	BEN, BFA, CHN, CIV, CMR, COD, COG, ETH, FIJ, FRA, GAB, HTI, KEN, LUX, MDG, MLI, NER, NGA, NZL, RWA, SDN, SEN, SLE, TGO
1971	2	AFG, BGR, BLR, CSK, FIN, IDN, IRN, IRQ, JOR, KHM, KWT, MMR, MNG, NOR, PAK, POL, QAT, ROU, THA, UKR, YUG
1971	3	ARG, AUS, BOL, CAF, CAN, CHL, COL, ESP, GTM, JAM, LBN, MEX, MUS, NIC, NLD, PAN, PER, TTO, TUN, URY, VEN
1971	4	BRA, GUY, IND, ISL, JPN, LKA, MYS, NPL, PHL
1971	5	BDI, DZA, SGP, TCD, TZA, ZMB
1971	6	DOM, ECU, PRY, SLV, ZAF
1971	7	ALB, GIN
1971	8	EGY
1972	0	ARE, BGR, BHR, CHN, COL, CSK, CUB, DOM, DZA, FIN, GBR, GIN, IRQ, LAO, LBN, MAR, MLI, MNG, MRT, MUS, NIC, PAK, POL, PRT, QAT, ROU, RUS, SLE, SOM, SWE, SYR, TZA, UKR, YEM, YUG, ZMB
1972	1	AUS, BEL, BEN, BRB, CAN, CHL, COG, CRI, FRA, GAB, GRC, LUX, MDG, MMR, NZL, PER, RWA, SAU, SDN, SEN, SWZ, TCD, TUN, TUR, UGA, VEN
1972	2	ARG, AUT, BFA, BOL, BRA, BTN, CIV, CMR, ECU, ESP, HND, HTI, IND, ITA, JPN, MEX, MWI, NER, NLD, NPL, SGP, SLV, TGO, URY, ZAF
1972	3	CYP, FIJ, GUY, IDN, IRN, LBR, MLT, MYS, OMN, PHL, THA
1972	4	AFG, BDI, CAF, EGY, ETH, GMB, JAM, KEN, USA
1972	5	DNK, GHA, GTM, LKA, NGA, PRY
1972	6	ISL, ISR, JOR
1972	7	ALB, BLR
1972	8	KHM, KWT, LBY, YDY
1972	9	COD
1972	10	HUN
1972	11	IRL
1973	0	AFG, AUS, BEL, CAN, CYP, DNK, FIN, FIJ, GUY, IDN, IND, ISL, ITA, LUX, MMR, MUS, NLD, NOR, NZL, PHL, ROU, SEN, THA, UKR
1973	1	ARG, BEN, BOL, CAF, CHL, COL, ESP, GTM, HND, HTI, HUN, LBN, MAR, MDG, MEX, MRT, PER, PRY, RWA, TUR
1973	2	ARE, BDI, BHR, DZA, EGY, GHA, IRN, IRQ, KWT, LBY, MLI, QAT, SAU, SDN, SOM, SYR, YDY, YEM
1973	3	BFA, BTN, CHN, COD, COG, CSK, DDR, GIN, LAO, MYS, NER, OMN, PRT, YUG
1973	4	AUT, BLR, BRA, DEU, GBR, GRC, MNG, POL, RUS, USA
1973	5	ETH, LKA, NGA, NPL, SWE, TZA, ZMB
1973	6	CRI, ECU, NIC, PAN, URY, VEN
1973	7	GAB, JAM, JPN, KEN, LBR, LSO, PAK, SLE, ZAF
1973	8	ISR, SGP, SLV, TUN
1973	9	ALB, BGR
1973	10	CUB, KHM
1973	11	BHS, FRA
1973	12	IRL
1973	13	JOR
1974	0	AFG, AUT, BDI, BEL, BEN, BFA, BGD, BLR, BRA, BTN, CAF, CHL, CHN, CIV, CMR, COD, COG, CSK, CUB, DDR, DEU, DNK, DZA, EGY, ESP, ETH, FIN, FRA, GAB, GHA, GIN, GNQ, GRC, GTM, HND, IND, IRL, IRN, IRQ, ISL, ISR, ITA, JOR, JPN, KHM, LAO, LBN, LBR, LBY, LKA, LUX, MEX, MLI, MLT, MRT, MUS, MYS, NER, NLD, NOR, NPL, PAK, PER, POL, PRT, PRY, ROU, RUS, RWA, SEN, SGP, SLE, SLV, SOM, SWE, SYR, TGO, THA, TUN, TUR, UGA, VEN, YDY, YEM, YUG, ZMB
1974	1	ARG, AUS, CAN, COL, DOM, ECU, GBR, GRD, NIC, NZL, PHL, URY, USA
1974	2	ARE, BHR, IDN, KEN, KWT, OMN, QAT, SAU, SWZ, TCD
1974	3	BOL, BRB, BWA, GMB, JAM, LSO, MMR, NGA, SDN, TZA
1974	4	ALB, BGR, HUN, MNG, UKR
1974	5	CRI, MAR
1974	6	CYP
1974	7	GUY
1974	8	HTI

Table 3: Infomapped communities 1970-1974

Year	Community	ISO Country Code
1975	0	AFG, ALB, ARG, AUS, AUT, BEL, BFA, BGD, BGR, BHR, CAN, CHL, CHN, CMR, CRI, CUB, DDR, DEU, DNK, DOM, DZA, ECU, ETH, FJI, FRA, GBR, GIN, GRC, GUY, HUN, IDN, IND, IRL, IRN, IRQ, ISR, ITA, JPN, KWT, LAO, LBR, LBY, LKA, MAR, MDG, MMR, MUS, MYS, NER, NLD, NOR, NPL, NZL, PAK, PER, POL, PRY, RWA, SGP, SOM, SWE, THA, TUR, VEN, YDY, YUG
1975	1	ARE, BEN, COL, GAB, GHA, GNQ, JAM, KEN, MLI, MOZ, MRT, MWI, SAU, SDN, SYR, TCD, TGO, YEM, ZMB
1975	2	BDI, BOL, BRA, BRB, BTN, COD, HND, LSO, MEX, NGA, OMN, PHL, PRT, SEN, SLV, TUN, TZA, URY
1975	3	BLR, CSK, MNG, ROU, RUS, UKR, USA
1975	4	CAF, FIN, ISL, NIC, PAN
1975	5	COG, JOR, KHM, QAT, SLE, UGA
1975	6	CYP, ESP
1975	7	GRD, GTM
1975	8	BWA
1976	0	AFG, ARE, BDI, BEN, BFA, BHR, BWA, CAF, CMR, COD, COG, COM, CRI, CUB, DDR, DZA, ECU, EGY, FRA, GAB, GHA, GIN, GUY, HUN, IDN, KEN, KWT, LBR, LBY, LKA, LSO, MAR, MDG, MDV, MLI, MMR, MOZ, MRT, MUS, MYS, NER, PER, PRT, QAT, RWA, SAU, SDN, SEN, SLE, SOM, STP, SUR, SWE, SWZ, SYR, TCD, TGO, TUN, TZA, UGA, YEM, YUG, ZMB
1976	1	BTN, CAN, DNK, GBR, GTM, IRL, ISL, MLT, NIC, NZL, OMN, PAK, PHL, PRY
1976	2	BGD, BRB, ETH, GRD, IND, JAM, JOR, LBN, NGA, PAN, PNG, SGP, TUR
1976	3	ARG, AUS, AUT, BEL, BRA, CYP, FIN, GRC, IRN, ISR, ITA, JPN, NLD, NOR, NPL, SLV
1976	4	BOL, CHL, COL, DOM, FJI, HND, MEX, URY, VEN
1976	5	CPV, GNB, KHM, LAO, YDY
1976	6	DEU, POL, ROU, RUS, UKR, USA
1976	7	BGR, BLR, CSK, MNG
1976	8	ALB, CHN, IRQ
1976	9	ESP
1977	0	AUS, BGD, BOL, COL, CRI, DNK, FIN, IDN, IND, IRN, ISR, ITA, JAM, JPN, LSO, MEX, MMR, MUS, MYS, NLD, NOR, NZL, PAK, PHL, POL, PRY, SUR, SWE, THA, URY, VEN
1977	1	ARE, BDI, CMR, COD, COM, ETH, GHA, GIN, GMB, IRQ, KWT, LBY, MDG, MDV, MLI, MRT, MWI, NGA, NPL, SDN, SEN, SOM, STP, SWZ, SYC, TUN, TZA, UGA, WSM, YDY, YEM, YUG
1977	2	AGO, ALB, BEN, CAF, COG, CPV, DZA, EGY, GNB, GRC, JOR, LBN, MAR, MOZ, OMN, QAT, RWA, SAU, SYR, TCD
1977	3	ARG, CHL, ECU, GTM, HND, ISL, NIC, PAN, PER, SLV, USA
1977	4	AFG, BRB, BWA, FJI, KEN, LBR, SLE, TGO, TTO, ZMB
1977	5	AUT, BGR, BLR, CSK, CUB, DDR, GRD, HUN, LAO, MNG, ROU, RUS, UKR
1977	6	BEL, BHR, BRA, CAN, ESP, FRA, HTI, LKA, LUX, PRT
1977	7	BFA, BTN, CIV, CYP, GBR, IRL, NER, TUR
1977	8	DEU, SGP
1977	9	CHN, KHM
1977	10	PNG
1978	0	BDI, BFA, BGD, BHR, BOL, BRA, CAF, CAN, CHL, CIV, CMR, COM, CPV, DNK, DZA, FIN, FJI, FRA, GAB, GNB, GNQ, GRC, GRD, GTM, GUY, HTI, IDN, IND, IRL, ISL, ITA, JOR, KEN, KWT, LBR, LKA, LUX, MAR, MDG, MDV, MLI, MRT, NLD, NOR, NPL, POL, RWA, SEN, SUR, SWE, TCD, TGO, TUN, TUR, URY, USA, YUG
1978	1	ARE, AUS, BRB, BTN, BWA, CYP, DEU, GBR, GMB, JAM, JPN, MMR, MYS, NGA, NZL, SLE, SYC, TTO, TZA, WSM
1978	2	ARG, AUT, BEL, COL, CRI, DOM, ECU, ESP, MEX, MLT, NIC, PAN, PHL, PRT, SLV, VEN
1978	3	AGO, ALB, BGR, BLR, CHN, COD, COG, CSK, CUB, DDR, HND, HUN, ISR, MNG, NER, ROU, RUS, STP, UKR
1978	4	AFG, EGY, ETH, IRN, KHM, LBY, MOZ, OMN, PAK, QAT, SDN, SOM, SYR, THA, UGA, VNM, YDY, YEM, ZMB
1978	5	BEN, LAO
1978	6	IRQ, SGP
1978	7	GHA, MUS, PNG
1978	8	LBN, PER
1978	9	LSO
1979	0	AFG, ARE, ARG, AUT, BFA, BHR, BRA, BRB, BWA, CAN, CHL, CIV, CMR, COD, COG, COL, COM, CPV, CRI, CYP, ECU, EGY, ESP, ETH, FJI, FRA, GHA, GRC, GRD, HUN, IRQ, ISR, JOR, JPN, KEN, KWT, LBN, LBR, LKA, LSO, LUX, MDG, MDV, MEX, MLT, MRT, MUS, MWI, NER, NGA, NPL, OMN, PNG, PRT, QAT, SDN, SLE, SLV, SOM, STP, SYR, THA, TUN, TUR, TZA, URY, USA, YUG
1979	1	BOL, DJI, GNB, GNQ, LBY, MAR, SEN, TCD, UGA, YEM, ZMB
1979	2	BGD, BTN, FIN, IND, IRL, JAM, MMR, MYS, SUR, WSM
1979	3	BGR, BLR, CHN, CSK, DDR, IDN, MNG, NOR, POL, ROU, RUS, UKR
1979	4	ALB, BEL, DEU, DOM, GBR, GUY, IRN, ITA, PAK, PER, VEN
1979	5	BEN, GAB, GIN, LAO, MOZ, NIC, SAU, SGP, SYC, YDY
1979	6	BDI, CAF, CUB, GTM, MLI, PAN, RWA, TGO
1979	7	DMA, ISL, NZL, PHL, TTO
1979	8	AUS, NLD
1979	9	DZA, PRY
1979	10	KHM, VNM
1979	11	HND, HTI
1979	12	VAT

Table 4: Infomapped communities 1975-1979

Year	Community	ISO Country Code
1980	0	AFG, AGO, ALB, ARG, AUT, BEL, BEN, BFA, BGD, BHR, BHS, BLR, BOL, BRA, BRB, BTN, BWA, CAN, CHL, CHN, CMR, COD, COL, COM, CPV, CRI, CSK, CUB, CYP, ECU, EGY, ESP, ETH, FJI, FRA, GBR, GHA, GNQ, GRC, GRD, GTM, GUY, HND, HTI, IDN, IND, IRL, ITA, JAM, JOR, KEN, KHM, LAO, LBR, LBY, LCA, LKA, LSO, LUX, MAR, MDG, MDV, MEX, MLI, MLT, MMR, MNG, MOZ, MUS, MWI, MYS, NGA, NIC, NPL, NZL, OMN, PAK, PAN, PER, PHL, PNG, PRT, PRY, QAT, RUS, RWA, SAU, SDN, SEN, SLV, SOM, SUR, SYC, SYR, THA, TUN, TUR, TZA, URY, VCT, VEN, VNM, YDY, YUG, ZMB
1980	1	AUS, BGR, DDR, DEU, DNK, FIN, HUN, ISL, ISR, JPN, NLD, NOR, POL, ROU, SWE, UKR, USA
1980	2	ARE, CAF, COG, DJI, DZA, GAB, GMB, GNB, MRT, STP, SWZ, TTO, UGA, YEM, ZWE
1980	3	CIV, GIN, LBN, NER, SLE, TCD, TGO
1980	4	BDI, IRQ
1980	5	DOM
1980	6	IRN
1980	7	SGP
1981	0	ARG, AUS, BDI, BFA, BOL, BRB, CAF, CHL, CIV, CMR, COD, COG, COL, COM, CPV, CRI, CUB, DEU, DOM, DZA, FRA, GAB, GBR, GIN, GNB, GNQ, GRD, GTM, GUY, HND, HTI, IND, IRL, ISR, ITA, JAM, KEN, MLI, MRT, MUS, NER, NLD, PAN, PER, PRY, ROU, RWA, SEN, SLE, SLV, STP, TCD, TGO, URY, USA, VCT, VEN
1981	1	AGO, ARE, BHR, BWA, CYP, ECU, EGY, ESP, ETH, FJI, JOR, KHM, KWT, LBR, MDV, MYS, NGA, OMN, PRT, QAT, SAU, SDN, SGP, SOM, SUR, THA, TZA, UGA, WSM, ZMB
1981	2	AFG, AUT, BEL, BGR, BLR, CSK, DDR, DJI, DNK, FIN, HUN, IDN, ISL, JPN, LAO, MDG, MEX, MLT, MNG, PAK, PHL, PNG, POL, RUS, SWE, TUN, UKR, VNM, YUG
1981	3	BGD, BHS, BRA, BTN, CAN, GHA, GRC, LCA, LKA, LUX, NPL, NZL, TUR
1981	4	BEN, CHN, MOZ, YDY
1981	5	IRN, LBY, MAR, NIC, SYC, SYR, YEM, ZWE
1981	6	ALB
1981	7	DMA
1981	8	IRQ
1981	9	LBN
1982	0	AUS, AUT, BGD, BTN, COD, CYP, DNK, EGY, FIN, FJI, GBR, GRC, IDN, IND, IRL, ITA, JPN, LKA, LSO, LUX, MDV, MMR, NLD, NOR, NPL, NZL, PAK, PHL, PNG, POL, SWE, TUR, TZA, YUG
1982	1	AGO, BEL, BLZ, BOL, CHL, COG, COL, CRI, DZA, GAB, GIN, GNB, HND, MDG, PER, PRY, SGP, SUR, TGO, TUN, USA, VEN
1982	2	AFG, BEN, BHR, DDR, DJI, ETH, GRD, GUY, IRN, JAM, LBY, MAR, MOZ, NGA, SLE, SOM, STP, VCT, VNM, YDY, ZWE
1982	3	BDI, BFA, BHS, COM, CPV, HTI, IRQ, KHM, KWT, MLI, MRT, MUS, NER, SEN, TCD
1982	4	ARE, ATG, BRB, CAN, GMB, ISR, KEN, LBR, RWA, SDN, TTO, UGA, ZMB
1982	5	ALB, BGR, BLR, CSK, CUB, HUN, LAO, MNG, NIC, RUS, UKR
1982	6	BRA, ESP, FRA, MEX, SLV
1982	7	ARG, ECU, MLT, PAN
1982	8	BWA, JOR, QAT, THA
1982	9	CAF, DEU, DOM, GNQ, GTM, PRT, URY
1982	10	ISL, ROU
1982	11	CHN, YEM
1982	12	CMR, GHA, OMN
1982	13	SAU, SYR
1982	14	MYS
1983	0	AFG, AGO, ALB, BLR, BWA, CHN, COG, CSK, CUB, DDR, GHA, GNB, GRD, IRL, IRN, KHM, LAO, LBN, LBY, LSO, MLT, MOZ, MUS, NGA, NIC, NOR, POL, PRT, ROU, RUS, STP, SWE, SYC, SYR, UKR, URY, USA, YDY, ZWE
1983	1	ARE, ATG, AUT, BLZ, BRA, BRB, CAF, CRI, CYP, ESP, GNQ, GRC, GTM, GUY, ISL, ITA, JAM, JPN, KWT, MDV, MEX, MMR, NER, NPL, RWA, SLB, SUR, THA, TUR, UGA, VEN, ZMB
1983	2	BDI, BEN, BGD, BHR, BHS, CHL, CMR, COD, DEU, DJI, DNK, FIN, FJI, GBR, GIN, ISR, JOR, LUX, MDG, NLD, OMN, PAK, PER, PRY, QAT, SAU, SEN, TUN, TZA, WSM, YEM
1983	3	COM, ETH, KEN, LBR, LKA, MAR, MRT, MYS, NZL, PNG, SGP, TTO, VCT, VUT
1983	4	AUS, BEL, BOL, DZA, ECU, EGY, FRA, GAB, IND, MLI, SDN, SOM, YUG
1983	5	BFA, BTN, CPV, IRQ, SLE, TCD
1983	6	BGR, HND, HUN, MNG, SLV
1983	7	ARG, DOM
1983	8	HTI, TGO
1983	9	CAN, IDN, PHL
1983	10	COL
1983	11	VNM
1984	0	AGO, ARG, ATG, AUS, AUT, BDI, BEN, BFA, BGR, BHS, BLZ, BRB, BTN, BWA, CAF, CHN, CMR, COG, COM, CPV, CUB, DDR, DMA, DNK, DOM, DZA, ECU, ESP, ETH, FIN, FJI, FRA, GAB, GNB, GNQ, GRC, GUY, HND, HTI, HUN, IDN, IND, IRL, ISR, ITA, JAM, JPN, LBR, LCA, LSO, MAR, MDG, MDV, MLI, MLT, MMR, MUS, MYS, NER, NGA, NIC, NLD, NPL, NZL, PHL, PNG, PRT, RWA, SEN, SGP, SLB, SLE, SLV, STP, SUR, SWE, TCD, TGO, TTO, TUN, TUR, TZA, VUT, YDY, YUG, ZAF
1984	1	BGD, BHR, CYP, DJI, EGY, GHA, GIN, GMB, KWT, LBN, LKA, OMN, QAT, SDN, SWZ, YEM, ZWE
1984	2	BOL, BRA, CAN, CHL, COD, COL, GBR, GTM, ISL, LUX, MEX, PAN, PER, URY, VEN
1984	3	AFG, ARE, IRQ, JOR, KEN, LAO, LBY, MNG, MOZ, MRT, PAK, SAU, SOM, SYR, THA, UGA, UKR, VNM
1984	4	BEL, BLR, CSK, DEU, NOR, POL, PRY, ROU, RUS, USA
1984	5	ALB, IRN, KHM
1984	6	CRI

Table 5: Infomapped communities 1980-1984

Year	Community	ISO Country Code
1985	0	ARG, BDI, BEN, BGD, BHS, BRA, BRB, CAF, CMR, COG, COM, CRI, CYP, DOM, ECU, ESP, GUY, HND, HTI, IDN, IND, JOR, KEN, LKA, MAR, MEX, MLI, MMR, MOZ, MUS, NPL, OMN, PAK, PAN, PHL, SAU, SDN, SGP, SLE, SOM, SUR, SWZ, TGO, TTO, TUN, URY, VEN, YEM, YUG, ZWE
1985	1	AFG, ALB, CHN, CSK, CUB, FIN, GIN, HUN, IRL, IRN, ISL, JPN, LAO, MDG, NOR, POL, ROU, RUS, SWE, SYR, USA, VNM, YDY
1985	2	AGO, ARE, AUT, CAN, CHL, COD, DEU, DNK, DZA, EGY, ETH, FRA, GBR, GRC, ITA, LBR, MLT, MWI, NLD, PNG, PRY, RWA, STP, TUR
1985	3	AUS, BFA, BLZ, BOL, BRN, DJI, GHA, JAM, KNA, MRT, NER, NGA, NZL, SLB, TCD, THA, TZA, UGA, VUT, WSM
1985	4	BHR, COL, GTM, IRQ, KWT, LBY, MYS, QAT, SLV
1985	5	BGR, BLR, DDR, KHM, MNG, UKR
1985	6	BEL, LUX, PRT
1985	7	PER
1985	8	ISR
1986	0	AGO, ARG, AUS, BDI, BEL, BGR, BOL, BRA, BRB, BTN, BWA, CAF, CHL, CMR, COD, COG, COL, CPV, DDR, DJI, DZA, EGY, ESP, ETH, FRA, GHA, GIN, GMB, GNB, GNQ, GUY, HTI, IRL, ISL, LBR, LUX, MAR, MEX, MLI, MRT, NER, NPL, PRT, PRY, QAT, RUS, RWA, SDN, SEN, SLE, STP, SWE, TCD, TUN, TZA, UKR, URY, USA, VEN, VUT, YUG, ZWE
1986	1	AUT, BGD, BLR, CSK, CYP, DEU, FIN, IND, JAM, JPN, KEN, MDV, MLT, MMR, NOR, POL, ROU, SOM, TTO, TUR, VCT
1986	2	ALB, ARE, BHR, BLZ, CAN, DNK, GRC, HUN, MUS, MWI, NLD, OMN, SGP, SLB, SUR, YEM
1986	3	AFG, BRN, CHN, CUB, ECU, IDN, IRN, LKA, LSO, MNG, MYS, PAK, PER, THA, ZMB
1986	4	ATG, BHS, FIJ, GBR, GRD, ITA, NGA, NZL, PNG, WSM
1986	5	CRI, DOM, KHM, PAN, SLV, TGO
1986	6	KWT, LAO, SWZ, VNM, YDY
1986	7	GTM, JOR, MOZ, SAU
1986	8	BFA, COM, HND, IRQ, ISR, LBY, SYR
1986	9	LBN, NIC
1986	10	PHL
1987	0	BDI, BEN, BFA, BLZ, BRA, BRN, BWA, COD, COL, COM, DJI, DOM, ETH, FIJ, FRA, GIN, GNB, HTI, IDN, IND, ITA, JOR, KHM, LAO, LSO, LUX, MAR, MDG, MOZ, MUS, MYS, NER, NZL, PHL, SDN, SWE, THA, TZA, VUT, WSM
1987	1	AGO, ALB, BOL, BRB, CHL, CPV, CRI, CSK, CYP, DDR, DZA, ECU, ESP, GRC, HND, IRL, ISL, KWT, LBN, MEX, MMR, MNG, PER, PRT, ROU, SLB, SLV, SUR, SYR, TUN, TUR, UKR, URY, YDY, YUG
1987	2	AUS, AUT, BGD, BHS, BLR, BTN, CAN, DNK, FIN, GBR, GUY, JAM, KEN, KNA, LBR, LCA, LKA, MWI, NGA, NLD, NOR, TTO, USA, VCT, VEN
1987	3	AFG, ARE, BHR, CHN, CMR, EGY, GNQ, ISR, MRT, OMN, PRY, QAT, RWA, SGP, SOM, TGO, VNM, YEM
1987	4	ARG, CAF, COG, GAB, GHA, MDV, MLI, RUS, SEN, SLE, SWZ, ZWE
1987	5	BEL, BGR, DEU, GTM, HUN, JPN, MLT, POL
1987	6	GMB, GRD, NPL, TCD, ZMB
1987	7	CUB, LBY, PAK, PAN, PNG, SAU
1987	8	IRN
1987	9	IRQ
1987	10	NIC
1988	0	AFG, ALB, ARG, BEL, BGR, BHR, BLZ, BOL, BRA, BRN, BTN, CAN, CHL, CHN, CPV, CSK, CUB, CYP, DEU, DOM, DZA, ECU, EGY, ESP, FIJ, GBR, GMB, GNB, GRD, IDN, IND, ISR, ITA, JOR, KNA, LBR, LCA, LUX, MAR, MDG, MDV, MEX, MLT, MMR, MNG, MUS, MYS, NGA, NIC, NLD, NPL, PAK, PAN, PNG, PRT, PRY, RUS, SLB, SLE, SOM, STP, SUR, SWZ, THA, TTO, TUR, TZA, VEN, VUT, YDY, YUG, ZWE
1988	1	AGO, ARE, BEN, BFA, BWA, CAF, CMR, COG, COM, ETH, GAB, GHA, GIN, GNQ, KEN, KHM, KWT, LAO, LBN, LBY, LSO, MOZ, MRT, MWI, OMN, SAU, SEN, SYR, TCD, TGO, TUN, VNM, YEM, ZMB
1988	2	ATG, AUS, AUT, BGD, BHS, BLR, BRB, COL, CRI, DDR, DNK, FIN, FRA, GRC, GTM, HND, HUN, IRL, ISL, JAM, JPN, LKA, NOR, NZL, POL, ROU, SLV, SWE, UKR, URY, USA, VCT, WSM
1988	3	HTI, NER, RWA, SDN
1988	4	IRN, IRQ
1988	5	COD, DJI, QAT, UGA
1988	6	BDI, MLI
1988	7	PER, PHL
1988	8	SGP
1989	0	ALB, ARE, BDI, BEL, BGR, BRB, BWA, CAN, CIV, CMR, COG, CYP, DDR, DZA, EGY, ESP, ETH, GBR, GHA, GUY, IDN, JOR, KHM, LAO, LBY, LKA, LSO, LUX, MMR, MNG, MOZ, MRT, MYS, OMN, PAK, RUS, SAU, TUR, UGA, VNM, YDY, ZMB, ZWE
1989	1	AFG, ATG, BGD, BHR, BLR, DJI, DMA, FIN, FIJ, GRC, GRD, ISR, MDG, MDV, MUS, NLD, NPL, NZL, POL, SDN, SEN, SOM, SUR, SWE, SYR, TGO, THA, TUN, TZA, VCT, YUG
1989	2	AGO, BHS, BLZ, CHL, CUB, DOM, FRA, GIN, HND, JPN, KNA, LCA, NER, NIC, RWA, SWZ, URY, VEN
1989	3	BRN, CHN, COM, GAB, GMB, GNQ, IRN, IRQ, KEN, KWT, LBR, MAR, MWI, QAT, SGP, YEM
1989	4	ARG, AUT, COL, DNK, ECU, GTM, IRL, ISL, ITA, JAM, MEX, PER, PRT, PRY
1989	5	CPV, CSK, GNB, IND, NGA, ROU, STP, TTO, UKR
1989	6	CRI, PAN, SLV, USA, VUT
1989	7	AUS, BRA, MLT, NOR, SYC
1989	8	BOL, PHL
1989	9	COD, MLI, TCD
1989	10	BEN, BFA, HTI
1989	11	DEU, HUN
1989	12	PNG, SLB

Table 6: Infomapped communities 1985-1989

Year	Community	ISO Country Code
1990	0	ARG, BGD, BLZ, BRB, BTN, CHL, CHN, CMR, COG, COM, CPV, CRI, DJI, DMA, ECU, ETH, GIN, GRC, GRD, GUY, IDN, IRQ, KEN, LSO, MUS, MYS, NPL, PNG, PRY, SUR, SYR, TTO, TUR, TZA, URY, VCT, VUT, ZWE
1990	1	AFG, ALB, AUS, AUT, BEL, BGR, BLR, CAF, CAN, DNK, DOM, ESP, FIN, FRA, GNQ, HND, HTI, HUN, IND, IRL, IRN, ISL, ITA, LAO, LIE, LUX, MMR, NIC, NLD, NOR, NZL, PHL, POL, PRT, ROU, RUS, RWA, SWE, TCD, UKR, USA, VEN
1990	2	BDI, BFA, DZA, GAB, GHA, GMB, JOR, JPN, LBR, MDG, MDV, MLI, MNG, MOZ, NER, NGA, SLE, SOM, SYC, TGO, THA, TUN, UGA, VNM, WSM, YEM
1990	3	ARE, ATG, BHR, COD, EGY, FJI, KNA, KWT, LBN, MAR, OMN, QAT, SDN, YUG
1990	4	BOL, BRA, GTM, JAM, LKA, MEX, PAK
1990	5	BEN, BRN, BWA, CYP, GNB, LBY, MRT, MWI, SWZ
1990	6	CSK, DDR, DEU, GBR, PAN, SLV
1990	7	AGO, CUB, LCA, MLT, NAM, SEN, SGP, ZMB
1990	8	COL, PER
1990	9	BHS
1990	10	ISR
1990	11	SAU
1990	12	SLB
1991	0	AFG, ALB, ARG, ATG, BLZ, BRB, BTN, CAF, CHN, COM, CPV, CUB, CYP, DNK, EGY, FRA, GHA, GUY, IDN, KEN, KHM, KOR, LBY, LCA, LIE, LSO, LTU, MAR, MDV, MLI, MNG, NIC, PAK, PNG, PRT, SGP, STP, SUR, SWE, THA, TTO, TUN, TUR, VCT, VNM, VUT, YEM, ZMB, ZWE
1991	1	BHS, BOL, BRA, CAN, DEU, ESP, EST, FIN, FJI, FSM, GBR, HUN, IRL, ITA, MYS, NOR, PAN, PRY, ROU, SLB, URY, VEN, WSM
1991	2	ARE, AUT, BFA, COG, DMA, ECU, ETH, GMB, GTM, HND, JAM, KNA, LBR, LUX, MDG, MLT, MRT, NLD, NPL, SEN, SLV, SYC, TGO, YUG
1991	3	AGO, BDI, BEN, CIV, CMR, DJI, GNB, GNQ, GRD, LAO, MWI, NAM, NGA, PRK, RWA, SDN, SLE, SWZ, TCD, TZA, UGA
1991	4	AUS, BEL, BGD, BRN, CHL, COL, CSK, GRC, JPN, LBN, MEX, MHL, NZL, POL, RUS, UKR, USA
1991	5	DZA, GIN, IND, JOR, LKA, MMR, MUS, OMN, PHL, QAT, SAU, SYR
1991	6	BHR, BLR, ISR, KWT
1991	7	BGR, CRI, IRN, ISL, LVA
1991	8	DOM, PER
1991	9	BWA, GAB, MOZ
1991	10	HTI
1991	11	IRQ
1992	0	AFG, ALB, ARG, BDI, BGR, BHR, BHS, BRA, BTN, CHL, COM, CPV, CSK, DEU, DJI, DMA, DZA, EGY, ETH, GMB, GNQ, GRC, HND, HRV, HUN, IDN, ISL, ITA, LAO, LBN, LBY, LIE, LSO, LUX, LVA, MAR, MDA, MDV, MNG, MRT, MUS, NAM, NER, NIC, NLD, NOR, NPL, OMN, POL, PRY, QAT, ROU, SDN, SLV, SMR, SUR, TUR, URY, VCT, ZWE
1992	1	AGO, BEN, BFA, BLZ, BRN, CIV, CMR, COD, COG, GAB, GIN, GNB, IRL, LBR, LCA, LTU, MDG, MLI, MOZ, MWI, PER, PHL, PNG, PRT, RWA, SEN, SGP, SLE, STP, SWZ, TCD, TGO, VEN, VUT
1992	2	AUT, BGD, BRB, DNK, FIN, FJI, GRD, IND, MHL, MLT, MMR, MYS, NGA, NZL, PAK, SLB
1992	3	ATG, AZE, CRI, DOM, ECU, EST, GEO, HTI, KAZ, KGZ, TJK, UZB
1992	4	AUS, BEL, COL, CYP, ESP, FRA, MEX, PAN, SWE, USA
1992	5	BWA, GHA, JAM, KEN, KNA, TZA, UGA
1992	6	ARE, BIH, JOR, KWT, SVN, SYR, TUN
1992	7	IRN, IRQ, SAU, YEM
1992	8	ARM, BLR, GTM, RUS, SYC, UKR
1992	9	CAN, FSM, GBR
1992	10	CHN, PRK, VNM
1992	11	JPN, KOR, LKA
1992	12	BOL, CUB
1992	13	ISR
1993	0	ARE, ARG, ARM, ATG, AUT, AZE, BEL, BHR, BHS, BLR, BLZ, BRA, BRB, BRN, BWA, CHL, DNK, ESP, FSM, GBR, GHA, GRC, GRD, IDN, IND, IRL, IRQ, ISL, ITA, JAM, JOR, JPN, KAZ, KOR, LAO, LBR, LIE, LUX, MDA, MEX, MKD, MLT, MRT, NOR, OMN, PNG, PRT, ROU, SGP, SVK, SWE, THA, TTO, TUN, TUR, UGA, UKR, USA, VNM
1993	1	BEN, BGD, BTN, CAF, CHN, CIV, CMR, COD, COM, CPV, DMA, DZA, EGY, ERI, ETH, GAB, GIN, GNB, IRN, KEN, LBY, LSO, MAR, MDV, MHL, MLI, MOZ, MUS, MWI, NAM, NER, NGA, PAK, PHL, SDN, SUR, SWZ, TCD, TZA, VCT, WSM, ZWE
1993	2	AFG, AGO, BDI, BFA, COG, CUB, DJI, DOM, ECU, FJI, GMB, GNQ, GTM, GUY, HND, HTI, KNA, LKA, MCO, MMR, MNG, NIC, NPL, SEN, SLE, SLV, SYC, TGO, VEN
1993	3	AUS, BGR, CAN, CYP, DEU, FIN, HRV, LVA, NLD, NZL, POL
1993	4	BOL, COL, KGZ, PAN, PER, PRY, TJK, TKM, UZB
1993	5	ALB, BIH, CRI, CZE, EST, FRA, HUN, LTU, MYS, RUS, SMR, SVN, URY
1993	6	KHM, KWT, LBN, QAT, SAU, YEM
1993	7	PRK, RWA, SLB
1993	8	LCA, SYR
1993	9	ISR
1994	0	AGO, ARE, ARM, AUS, AUT, BRB, BRN, BTN, CAN, CZE, DNK, DZA, EGY, FIN, FJI, FRA, GBR, GEO, GRD, GUY, HRV, IDN, JOR, KGZ, KNA, KWT, LKA, LUX, MCO, MDV, MHL, MKD, MLT, MNG, MUS, NLD, NPL, NZL, OMN, PNG, PRT, QAT, ROU, SEN, SGP, SLB, SMR, SVN, SYC, THA, TUN, TZA, UKR, URY
1994	1	BEN, BHS, BLZ, CIV, CMR, COG, DMA, GAB, GHA, GIN, GMB, HTI, JAM, KEN, LBR, MDG, MLI, MOZ, MWI, NAM, NGA, NIC, PER, RWA, SLE, SLV, SUR, TCD, TTO, UGA, ZMB
1994	2	ARG, BDI, BGD, BOL, BRA, CHL, COD, CPV, CRI, CUB, DJI, ECU, ERI, ESP, ETH, GNB, GNQ, GTM, HND, IND, IRL, ISL, LSO, MAR, NER, SWZ, TGO, USA, VCT, VEN, ZAF
1994	3	AND, BGR, CYP, DEU, FSM, JPN, KOR, LIE, LTU, LVA, MYS, NOR, RUS, SVK, SWE
1994	4	BHR, BIH, BLR, CHN, IRN, ITA, KAZ, MEX, SAU, TJK, TUR, UZB
1994	5	AFG, BWA, COM, KHM, LBY, LCA, MRT, PHL, PRY, SDN
1994	6	ALB, BEL, EST, GRC, HUN, MDA, POL
1994	7	ATG, BFA, CAF, LAO, PAN, ZWE
1994	8	AZE, MMR, VNM
1994	9	PAK, SYR, YEM
1994	10	COL, DOM
1994	11	LBN, PRK
1994	12	IRQ
1994	13	ISR

Table 7: Infomapped communities 1990-1994

Year	Community	ISO Country Code
1995	0	ALB, AND, ARG, BHS, BLZ, BOL, CAF, CHN, COL, CRI, CUB, DJI, DOM, ECU, ETH, GNQ, GRC, GRD, HND, HTI, IDN, IRN, JAM, KAZ, KEN, KNA, LBN, LCA, MDG, MDV, MMR, MNG, PER, PHL, POL, PRY, RWA, SGP, SLV, SMR, SUR, SVN, TJK, TTO, TUR, UGA, VCT
1995	1	AUT, BGD, BRB, BRN, BTN, BWA, CAN, CHL, CZE, DEU, DNK, ESP, EST, FIN, FJI, FRA, GBR, GHA, GUY, HUN, IND, IRL, ITA, KGZ, KHM, KOR, LIE, LTU, LVA, MCO, MKD, MLT, MUS, NLD, NOR, NPL, NZL, PAK, PNG, PRT, SLB, SWE, TZA, USA, VNM, WSM, ZAF, ZMB
1995	2	ARE, BDI, BFA, BHR, CMR, COD, COG, DZA, EGY, GAB, GMB, IRQ, JOR, KWT, LBR, LBY, LKA, MYS, NER, NGA, OMN, QAT, SDN, SLE, SWZ, SYR, TGO, YEM
1995	3	ARM, AZE, BEL, BGR, BRA, CYP, GEO, ISL, JPN, LUX, MDA, MEX, NIC, PAN, ROU, RUS, SVK, UKR, URY
1995	4	AGO, BEN, BLR, ERI, GIN, GNB, GTM, HRV, LAO, LSO, MAR, MLI, MOZ, MRT, MWI, NAM, SEN, TCD, THA, TKM, TUN
1995	5	AUS, FSM, MHL
1995	6	BIH, ISR, VEN
1995	7	PRK
1995	8	AFG
1995	9	ATG
1996	0	AGO, ARE, AZE, BDI, BEN, BFA, BHR, BHS, BRN, BTN, BWA, CAF, CIV, COD, COM, CZE, DJI, DOM, DZA, EGY, ERI, ESP, GAB, GHA, GIN, GMB, GNB, HND, HTI, IRL, IRN, ISR, ITA, JOR, JPN, KEN, KHM, KWT, LAO, LBN, LBY, LSO, LUX, MAR, MDA, MOZ, MRT, MWI, NAM, NGA, OMN, PRK, QAT, ROU, RWA, SAU, SDN, SEN, SLE, SMR, TGO, TJK, TUN, TUR, TZA, UGA, UZB, YEM, ZAF, ZMB, ZWE
1996	1	ALB, AND, ATG, AUS, AUT, BEL, BGR, BIH, BLR, BRA, CHN, COL, CRI, DEU, EST, FIN, FJI, FRA, GRC, GTM, IDN, ISL, KGZ, KOR, LTU, LVA, MCO, MEX, MLT, NIC, NLD, PAK, PAN, PHL, PLW, PNG, POL, PRY, RUS, SGP, SVN, SWE, SWZ, SYC, SYR, UKR, USA, VCT, VUT
1996	2	AFG, ARM, BGD, BLZ, BRB, CAN, CHL, CYP, DMA, DNK, ECU, FSM, GNQ, GRD, GUY, HUN, IND, JAM, KAZ, KNA, LCA, LIE, LKA, MHL, MMR, MNG, MUS, NPL, NZL, PRT, SLB, SLV, SUR, THA, TKM, TTO, VNM, WSM
1996	3	COG, CPV, ETH, LBR, MDG, MLI, NER, TCD
1996	4	CUB, GBR, MYS, NOR, PER, VEN
1996	5	BOL, GEO, HRV, MKD
1996	6	ARG, MDV, SVK, URY
1996	7	IRQ
1997	0	AGO, ATG, BDI, BEN, BFA, BGD, BLZ, BOL, BRN, BWA, CHN, CIV, COL, COM, CRI, DJI, DZA, EGY, ERI, ESP, FIN, GAB, GIN, GNB, GRD, GUY, HND, IDN, IRL, IRN, ISL, ISR, JOR, KNA, KOR, KWT, LAO, LBR, LCA, LSO, MDA, MDG, MDV, MHL, MLI, MLT, MMR, MOZ, MRT, MYS, NAM, NER, NGA, NIC, NPL, PAK, PER, PHL, PRT, QAT, SDN, SEN, SLB, SWZ, SYR, TCD, TGO, THA, TUN, TZA, USA, VCT, VNM, VUT, ZAF, ZWE
1997	1	ALB, AND, BGR, BIH, BLR, BRA, BTN, EST, FRA, GBR, GTM, HRV, HUN, IND, ITA, JPN, LTU, LUX, LVA, MEX, MKD, PAN, POL, ROU, RUS, SGP, SLE, SLV, SVN, UKR, URY, VEN
1997	2	ARG, ARM, AUS, AUT, AZE, BEL, CAN, CHL, CUB, CZE, DEU, DNK, DOM, ECU, GNQ, LIE, MCO, NLD, NOR, PRY, SMR, SWE
1997	3	BHS, BRB, CAF, CPV, ETH, FJI, GHA, MWI, PRK, SYC
1997	4	COD, DMA, HTI, JAM, KEN, MUS, PNG, TTO, UGA, ZMB
1997	5	CYP, GRC, KAZ, KGZ, NZL, SVK, TKM, TUR, UZB
1997	6	ARE, BHR, MAR, OMN, YEM
1997	7	IRQ, LBN
1997	8	GEO, TJK
1997	9	GMB, MNG, SUR
1997	10	AFG
1997	11	COG
1997	12	LBY
1997	13	LKA
1997	14	RWA
1998	0	BDI, BLZ, BRN, BWA, CAF, COD, COG, DJI, DMA, EGY, FJI, GAB, GNQ, GRC, GUY, IRQ, JAM, KWT, LBR, LCA, LSO, LUX, MDV, MMR, MUS, MWI, NAM, NGA, NZL, PNG, SLB, SYC, TZA, UGA, VCT, VUT, WSM, ZMB, ZWE
1998	1	AND, ARG, AUS, AUT, BEL, BEN, BFA, BGD, BRA, CAN, CHL, CHN, CMR, CPV, DEU, DNK, DZA, ESP, EST, FRA, GBR, GHA, HND, HRV, IDN, IND, IRL, JPN, MAR, MDG, MYS, NER, NIC, NOR, PAK, PER, PSE, QAT, STP, SVN, SWE, TGO, THA, USA, ZAF
1998	2	ALB, BHR, BOL, CIV, COL, CRI, DOM, GIN, GMB, GTM, HTI, KAZ, KGZ, KOR, MEX, MNG, MRT, NPL, OMN, PAN, PHL, PRY, RUS, SDN, SGP, SMR, SYR, TCD, TUN, UKR, URY, VNM, YEM
1998	3	ARM, AZE, BGR, BLR, CYP, CZE, GEO, IRN, ITA, LIE, LKA, LTU, MKD, MLT, POL, ROU, TJK, TUR
1998	4	ARE, BHS, CUB, HUN, ISR, LAO, LBN, MLI, PRK, SEN, VEN
1998	5	ATG, BIH, BRB, KEN, LVA, SLV, SUR, TTO
1998	6	FIN, FSM, ISL, JOR, MOZ, NLD, SAU
1998	7	MCO, MDA, SVK, TKM, UZB
1998	8	GNB, KNA, LBY, SLE
1998	9	AFG, COM, GRD, RWA
1998	10	AGO, BTN, ECU, ETH, PRT, SWZ
1998	11	ERI
1999	0	AFG, ARE, ATG, BGR, BHR, BLR, BRN, CAN, CHL, CHN, COD, CUB, CZE, DJI, DMA, EGY, ERI, ESP, EST, ETH, FRA, GMB, GNQ, GTM, HUN, IRN, ISL, ISR, JAM, KNA, KWT, LAO, LBY, LIE, LKA, LVA, MAR, MDV, MHL, MNG, MRT, NLD, NZL, OMN, PHL, PNG, POL, PSE, SLB, SUR, SVK, SWE, SWZ, THA, TJK, TKM, TUN, TUR, UKR, URY, USA, VNM, VUT, WSM, YEM, ZAF
1999	1	AND, BEL, BEN, BIH, BWA, CMR, COM, CPV, DEU, DNK, DZA, FIN, FJI, GAB, GBR, GNB, GUY, LSO, LUX, MCO, MLI, MLT, MOZ, MUS, MWI, MYS, NAM, NGA, NOR, SLE, SMR, TGO, TTO, ZMB, ZWE
1999	2	AUS, BDI, BHS, BLZ, BOL, BRA, BRB, DOM, ECU, GRD, HRV, KHM, LCA, MMR, PRT, ROU, SEN, SVN, VCT
1999	3	ARM, AZE, FSM, GEO, HND, JOR, KAZ, KGZ, LBN, MDA, PLW, PRK, QAT, RUS, SAU, SYR
1999	4	ALB, BGD, COL, HTI, IDN, IRL, MEX, MKD, NIC, PER, SDN
1999	5	ARG, AUT, BFA, CYP, GIN, JPN, KEN, KOR, LTU, NPL, TCD, UZB
1999	6	AGO, BTN, COG, CRI, PAN, PRY, RWA, UGA
1999	7	GRC, ITA, SGP, SLV
1999	8	CIV, GHA, IND, LBR, MDG, TZA
1999	9	IRQ
1999	10	NER
1999	11	PAK
1999	12	VEN

Table 8: Infomapped communities 1995-1999

Year	Community	ISO Country Code
2000	0	AGO, ARE, BGD, BGR, BHR, BIH, BLR, CHL, COM, CYP, DJI, DZA, EGY, FIN, FRA, GHA, GMB, HRV, IDN, IRN, JOR, KEN, KWT, LBN, LBY, MAR, MDV, MRT, MUS, MYS, NZL, OMN, PAK, QAT, SAU, SDN, SEN, SLB, SLE, SLV, SMR, SVN, SWE, TKM, TUN, TUR, UGA, VEN, YEM, ZWE
2000	1	ARG, AUT, CAN, CHN, COL, CPV, ETH, FSM, GUY, ITA, KOR, LAO, LBR, MEX, MLI, MNG, NIC, PHL, PRY, ROU, RUS
2000	2	BHS, BRB, CUB, DMA, GBR, GRC, GRD, HND, JAM, KGZ, KNA, LVA, MMR, MWI, NAM, NPL, NRU, RWA, TJK, URY, VCT
2000	3	BLZ, BOL, BRN, BWA, COG, DOM, GAB, GIN, GNB, GNQ, HTI, IND, LSO, MDG, MHL, SWZ, TTO
2000	4	BEN, BFA, BRA, CAF, ECU, GTM, NER, NGA, NOR, SUR, TCD, TGO, THA
2000	5	ALB, AUS, DEU, ESP, GEO, HUN, LIE, MKD, MLT, PER, POL, SVK
2000	6	CRI, EST, FIJ, IRL, ISL, KHM, PAN, PNG, TZA, VNM, VUT, ZAF
2000	7	AZE, CIV, CZE, DNK, ISR, JPN, KAZ, LTU, MDA, PRT, SGP, UKR
2000	8	AFG, IRQ, PSE, SYR
2000	9	ARM, BEL, ERI, LUX, PRK, USA
2000	10	AND, ATG, COD
2000	11	LKA, SOM
2000	12	BDI, MCO
2000	13	LCA
2000	14	NLD
2000	15	PLW
2001	0	AGO, AUT, BRA, CHL, CHN, CPV, CYP, CZE, DNK, ECU, ESP, ETH, FRA, GTM, HUN, IRL, ISL, ITA, JOR, JPN, KAZ, KOR, LIE, LTU, MCO, MKD, MRT, NER, NIC, OMN, PAK, PER, PRT, SAU, SVK, SWE, SYC, TUN, TUR, YEM
2001	1	ARE, ARG, ARM, BEL, BGD, BHR, BOL, DJI, DOM, EST, GEO, HND, HTI, IDN, JAM, KEN, KHM, KWT, LAO, LUX, LVA, MAR, MLT, MMR, MOZ, NPL, PRK, PRY, PSE, SLV, SMR, SOM, THA, VNM, ZAF
2001	2	ALB, BDI, BFA, BIH, BLR, BRN, CAF, COD, COG, DZA, ERI, FIJ, FSM, GAB, GIN, LBR, LBY, LSO, MDG, MEX, MWI, NGA, PNG, ROU, SDN, SLE, TKM, TZA, YUG, ZWE
2001	3	BHS, BLZ, BWA, CTY, GHA, GMB, GNB, IRQ, LCA, MDA, MDV, MHL, MUS, MYS, NAM, PAN, SLB, SWZ, TGO, UKR
2001	4	AND, COL, GBR, GRC, GUY, KGZ, LBN, NOR, POL, QAT, RWA, STP, UZB, WSM
2001	5	AZE, BEN, BGR, CMR, COM, MLI, RUS, SEN, TCD, TJK, ZMB
2001	6	AFG, AUS, BTN, CAN, DEU, FIN, IND, SYR, URY, VEN
2001	7	BRB, GNQ, GRD, KNA, MNG, SUR
2001	8	EGY, HRV, IRN, LKA, SVN
2001	9	NRU, PLW, TON, TUV, VCT
2001	10	CRI, CUB, NLD, NZL, USA
2001	11	ISR, UGA
2001	12	ATG, TTO
2001	13	DMA
2001	14	PHL
2001	15	SGP
2001	16	VUT
2002	0	AFG, ARE, ARG, AZE, BEL, BFA, BGD, BGR, BLR, BRA, BRN, BTN, CHE, CHL, CHN, CMR, CRI, CYP, CZE, DJI, DOM, DZA, EGY, ESP, GMB, GNQ, GTM, GUY, HRV, IDN, IND, ISL, JAM, JPN, KHM, KNA, LKA, LUX, MCO, MDA, MDG, MDV, MEX, MKD, MNG, MRT, NER, NGA, NIC, NLD, NOR, NPL, PHL, PRT, QAT, SDN, SGP, SMR, SWZ, THA, TJK, TKM, TUR, UKR, VCT, VNM
2002	1	AND, AUT, BHR, DEU, DNK, FIN, GBR, HUN, IRL, JOR, KAZ, KWT, MYS, NZL, PAK, ROU, RUS, SAU, SVK, SWE, USA, UZB, YEM
2002	2	BEN, COG, CPV, GAB, GHA, GIN, GNB, KEN, LSO, MLI, MOZ, MUS, MWI, RWA, SLE, SOM, TGO, UGA, ZMB
2002	3	ARM, BDI, BHS, BLZ, BWA, CAF, COM, ECU, LCA, MMR, NAM, PAN, PRY, TZA, URY, ZAF
2002	4	ATG, BOL, BRB, COD, DMA, FIJ, FSM, MHL, NRU, PNG, SLB, TON, TTO, TUV, VUT, WSM
2002	5	ALB, BIH, CAN, EST, GRC, IRN, ITA, KOR, LIE, LTU, SVN, YUG
2002	6	AUS, COL, CUB, IRQ, ISR, LBN, LVA, MLT, OMN, PLW, SYR
2002	7	HND, KGZ, LAO, PER, SLV, SUR, ZWE
2002	8	CIV, ETH, FRA, GEO, MAR, POL, PSE, TUN
2002	9	AGO, ERI, SEN, TCD
2002	10	LBR, PRK
2002	11	GRD, HTI
2002	12	STP
2002	13	VEN
2003	0	AGO, ALB, ARE, AUT, BDI, BEN, BGR, BOL, CHE, CIV, CMR, CRI, CZE, DOM, ESP, FIN, GHA, GIN, GNB, GNQ, HRV, ISR, ITA, JPN, KHM, LAO, LKA, LTU, MDG, MLT, MOZ, MRT, MWI, OMN, PAN, PNG, RWA, SEN, SMR, SUR, SWE, TGO, TLS, TUN, TZA, URY, VEN, YEM
2003	1	BFA, BGD, BRA, BRB, BTN, CAN, DMA, EST, GMB, GRD, GUY, IRL, JAM, KAZ, KIR, KNA, LCA, LUX, MEX, MHL, MLI, MMR, MNG, MUS, NAM, NGA, NOR, NPL, PLW, ROU, RUS, SDN, SLB, SLE, SVK, SYC, TTO, TUV, UKR, UZB, VCT, VNM, WSM, ZMB
2003	2	BHR, BLZ, BRN, CHL, CHN, COM, DEU, DNK, FRA, GBR, GTM, KEN, KWT, LSO, MAR, MYS, NIC, PER, POL, PRY, PSE, QAT, SAU, SGP, STP, SVN, VUT, ZWE
2003	3	ARM, AZE, CAF, COD, COG, CYP, GRC, KOR, MKD, NER, PRK, TCD, THA, TUR, UGA
2003	4	ARG, BEL, BIH, BWA, CPV, ETH, FIJ, GAB, HND, KGZ, LBR, MCO, MDA, NRU, TJK
2003	5	DZA, GEO, ISL, LIE, LVA, NZL, PHL, PRT, TON, ZAF
2003	6	BLR, EGY, IDN, IRN, JOR, LBN, PAK, SOM, SYR
2003	7	ATG, BHS, FSM, IND, MDV
2003	8	HTI, SLV, USA
2003	9	COL, ECU, ERI
2003	10	AND, AUS, HUN, NLD, SWZ
2003	11	AFG, CUB
2003	12	YUG
2003	13	IRQ

Table 9: Infomapped communities 2000-2003

Year	Community	ISO Country Code
2004	0	AUS, BDI, BHR, BLR, BWA, CAF, CAN, CMR, CYP, CZE, DJI, DZA, ETH, FIN, GAB, GHA, GIN, GTM, GUY, IRN, ITA, KGZ, LSO, LUX, LVA, MAR, MKD, MLI, MOZ, NGA, NPL, OMN, PAK, POL, QAT, RUS, SLE, SVN, SWE, SYR, TGO, TZA
2004	1	BLZ, BRB, COM, DEU, DMA, DOM, FJI, FSM, JAM, KIR, LIE, MCO, MDV, MEX, MUS, NRU, NZL, PAN, PLW, PNG, PRT, RWA, SLB, SLV, STP, SUR, SYC, TUV, WSM
2004	2	BRA, BRN, CPV, ESP, GBR, GRC, HUN, IRL, ISL, LAO, LTU, MNG, NLD, SGP, TUR, UKR, URY, USA, VAT, VCT, YUG
2004	3	AGO, ARG, BEL, CHE, CHL, FRA, GNB, GRD, HTI, JOR, LBY, MWI, NOR, PSE, SAU, SEN, TCD, TUN, ZWE
2004	4	ARE, AZE, BEN, BFA, EGY, ISR, KEN, KWT, LBR, MDA, NER, YEM, ZMB
2004	5	AND, ATG, BHS, BOL, CRI, ECU, GEO, GNQ, HND, PHL, PRY, TTO, ZAF
2004	6	ARM, CUB, IDN, IND, JPN, KHM, LCA, PER, THA, TJK, TLS, TON, VEN
2004	7	BTN, CHN, KAZ, MMR, ROU, SWZ, TKM, UZB, VUT
2004	8	AFG, ALB, AUT, BGR, DNK, SVK
2004	9	IRQ, LBN, MRT, MYS, NAM, SDN
2004	10	BGD, EST, HRV, LKA, MHL, MLT
2004	11	CIV, COD, COG, UGA
2004	12	BIH, GMB
2004	13	MDG, PRK
2004	14	COL, KNA, NIC
2004	15	KOR, SMR, VNM
2004	16	ERI
2005	0	AGO, ALB, ARE, BDI, BEL, BEN, BFA, BIH, BRA, CIV, COD, COG, COM, DEU, DZA, EGY, ESP, EST, FIN, FRA, GAB, GBR, GIN, GMB, GNB, HUN, IRL, IRQ, ISR, KEN, KWT, LBN, LBY, LUX, MAR, MRT, NAM, NER, NGA, PAK, QAT, SDN, SEN, SYR, TCD, TZA, UZB, YEM, ZMB
2005	1	AFG, AND, BRB, BRN, BTN, CHN, CZE, FJI, GUY, IND, KAZ, KGZ, KHM, KIR, LVA, MDA, MHL, MKD, MUS, PHL, ROU, RWA, SGP, SVN, SWZ, THA, TJK, TUV, WSM
2005	2	ARM, AUS, AZE, CAN, CPV, CYP, DNK, ECU, ETH, GEO, GTM, LAO, LSO, MCO, MDV, MWI, MYS, NLD, PER, SMR, STP, UKR, ZAF
2005	3	ARG, BGD, CHE, GHA, HRV, IDN, JAM, JPN, LKA, MEX, NOR, NPL, NZL, POL, SWE, TLS, TON, USA
2005	4	ATG, BHS, BLR, CHL, CMR, CRI, DMA, FSM, GRD, KNA, LCA, SVK, TTO, VNM
2005	5	CUB, GNQ, ITA, LTU, MMR, MNG, MOZ, PAN, PNG, SLB, SLE, SLV, SUR, VAT
2005	6	AUT, BGR, BLZ, KOR, MDG, MLT, NRU, PLW, PRT, VEN, VUT
2005	7	BHR, BOL, ERI, GRC, PRK, PSE, TGO, TUR
2005	8	DOM, NIC, PRY, SOM, UGA, URY
2005	9	CAF, HTI, JOR, TUN, YUG
2005	10	COL, ISL, LIE, RUS
2005	11	IRN
2005	12	TKM
2005	13	VCT
2005	14	ZWE
2006	0	ALB, AND, ARE, ARG, AUS, AUT, BEL, BFA, BGR, BLR, BRA, CHN, CMR, COM, CPV, CYP, DNK, DZA, EGY, ETH, FRA, GEO, GIN, GNQ, GRC, HUN, IDN, IND, IRL, ITA, JOR, KEN, KOR, KWT, LBN, LBR, LBY, LTU, MAR, MCO, MDG, MDV, MRT, MYS, NIC, NLD, NPL, NZL, OMN, PAK, POL, PRK, PRT, PSE, ROU, SDN, SEN, SLB, SMR, SOM, SVK, SVN, SWE, SYR, TCD, TGO, TLS, TUN, TUR, TUV, USA, UZB, VAT, YEM
2006	1	AGO, ARM, AZE, BDI, BEN, BIH, BWA, CAF, CIV, COD, COG, CZE, DOM, ESP, EST, FIN, GAB, GHA, GNB, HRV, JPN, KHM, LSO, LUX, LVA, MDA, MKD, MLT, MMR, MNE, MOZ, MWI, NAM, NER, NGA, NOR, PAN, SLV, TJK, UKR, YUG, ZMB
2006	2	BGD, BOL, BRN, BTN, CUB, ECU, FJI, FSM, GMB, GUY, ISL, KAZ, KGZ, KIR, MEX, PHL, PLW, RWA, SGP, SUR, TKM, TON, URY
2006	3	ATG, BHS, CRI, DMA, HTI, JAM, LCA, LKA, MUS, PER, PNG, STP, SYC, TTO, VNM, VUT, ZWE
2006	4	BRB, CHL, GRD, GTM, LAO, LIE, MLI, MNG, NRU, RUS, SLE, THA, UGA, WSM
2006	5	AFG, BHR, CAN, CHE, DEU, GBR, IRQ, ISR, QAT, SAU
2006	6	COL, IRN, MHL, PRY, VEN
2006	7	BLZ, HND, VCT
2006	8	ERI, KNA
2006	9	SWZ, TZA, ZAF
2007	0	AGO, ALB, BDI, BEL, BEN, BFA, BHR, BHS, BRN, BWA, CAF, CAN, CMR, COD, COM, CYP, DEU, DZA, EST, GAB, GHA, GIN, GMB, GNQ, GTM, JPN, KAZ, KHM, KWT, LBR, LIE, LSO, LVA, MKD, MLT, MNG, MRT, NAM, NGA, NIC, OMN, PAK, PER, ROU, RUS, RWA, SDN, SLV, SMR, SVK, TGO, TUN, TUR, TZA, UGA, VAT, VEN, VNM, YEM
2007	1	ARG, ATG, BGD, BLR, BLZ, BRA, BRB, BTN, CHL, DMA, ECU, ETH, FJI, HND, HRV, HTI, IDN, IND, KGZ, KIR, LAO, LCA, LTU, MCO, MDA, MMR, MNE, MOZ, NOR, NRU, PLW, POL, PRK, STP, SUR, SWZ, TJK, TKM, TON, TTO, TUV, URY
2007	2	ARM, AUS, AUT, AZE, CPV, CRI, DNK, EGY, FRA, FSM, GBR, GRD, IRL, ISL, ISR, JAM, JOR, LUX, MDG, MDV, MHL, MUS, MYS, NLD, NZL, PAN, PNG, PRY, SEN, SWE, SYC, THA, USA, VUT, YUG, ZMB
2007	3	ARE, BGR, CHE, ESP, FIN, GRC, HUN, KOR, MAR, MEX, PRT, QAT, UKR
2007	4	AFG, CIV, COG, GNB, LBY, NER, SLE, SOM, TCD
2007	5	AND, BOL, DOM, GUY, KNA, MWI, VCT, ZAF
2007	6	LBN, LKA, PSE, SGP, TLS
2007	7	COL, CUB, IRN, ZWE
2007	8	CHN, CZE, ITA, NPL, PHL, UZB
2007	9	BIH, IRQ, SLB, SVN, SYR, WSM
2007	10	ERI
2007	11	GEO
2007	12	KEN

Table 10: Infomapped communities 2004-2007

Year	Community	ISO Country Code
2008	0	ARM, ATG, BDI, BGD, BHS, BRB, BWA, CAN, CHE, COG, DMA, EST, ETH, FJI, GBR, GEO, GRD, HND, HTI, IDN, IND, IRL, ISL, JAM, KEN, KIR, KWT, LAO, LUX, MCO, MDG, MDV, MEX, MHL, MNG, MOZ, MUS, MWI, NAM, NOR, NPL, NZL, PAN, PNG, PRT, SLB, STP, SUR, SWZ, SYC, TON, UKR, WSM
2008	1	AZE, BEN, BFA, BHR, BLR, CIV, CMR, DNK, DZA, ECU, GIN, GNB, HUN, IRQ, JOR, JPN, KGZ, KHM, KOR, LBN, LBY, LSO, LVA, MAR, MLI, MNE, MRT, NER, OMN, PER, PSE, ROU, SDN, SLE, SOM, SVK, SVN, SYR, TCD, TGO, TJK, TKM, TUN, URY, YEM, ZMB
2008	2	AFG, AGO, ARE, AUT, BEL, BRA, CAF, COD, COM, CPV, CYP, DOM, FIN, GAB, GMB, GRC, ITA, KNA, LBR, QAT, SWE, TTO, TUR, TZA, VNM, VUT, ZAF, ZWE
2008	3	ALB, ARG, CHL, CZE, DEU, ESP, GNQ, HRV, IRN, LIE, LKA, MKD, MLT, MYS, SMR, USA, VEN
2008	4	BGR, CHN, EGY, FRA, ISR, MDA, NGA, POL, PRK, RUS, SEN, UZB
2008	5	AND, BTN, FSM, GUY, LCA, PHL, TUV
2008	6	CUB, ERI, KAZ, NIC, PRY, RWA, SGP, VCT
2008	7	GTM, LTU, SLV, VAT
2008	8	BLZ, NLD
2008	9	AUS, BIH
2008	10	COL, NRU, PLW, UGA
2008	11	BRN, GHA, MMR, TLS
2008	12	BOL
2008	13	CRI
2008	14	PAK
2008	15	THA
2008	16	YUG
2009	0	ALB, ARG, ARM, ATG, AUS, AUT, AZE, BEL, BFA, BGD, BIH, BRA, BRB, BTN, BWA, CAF, CHE, COM, DJI, DZA, ESP, EST, ETH, FIN, FJI, GAB, GBR, GEO, GHA, GIN, GRC, HRV, IRN, JAM, KEN, KHM, KWT, LAO, LCA, LIE, LSO, LUX, MAR, MDV, MEX, MHL, MKD, MLI, MLT, MMR, MNE, MRT, MWI, NAM, NER, NGA, NLD, NOR, NZL, PHL, PNG, PRT, QAT, RWA, SDN, SEN, SLE, SOM, STP, SVN, SWE, SWZ, TCD, TGO, TLS, TTO, TUN, TUR, USA, VAT, VUT, WSM, YEM, YUG, ZAF, ZMB, ZWE
2009	1	AFG, ARE, BHR, BLR, CAN, CHN, CYP, DEU, DNK, EGY, HUN, IDN, IND, IRL, IRQ, JOR, KAZ, KGZ, KOR, LBN, LKA, LTU, LVA, MDA, MNG, MYS, NPL, PAK, PRK, PSE, ROU, RUS, SVK, VNM
2009	2	AND, BEN, BLZ, CIV, CMR, COD, COG, ECU, GRD, ISL, ITA, KNA, MCO, MOZ, MUS, PER, SLB, SLV, SMR, SUR, SYC, TON, TUV
2009	3	AGO, BDI, BHS, BOL, COL, CPV, CRI, CUB, CZE, DOM, ERI, FRA, GNB, GNQ, GTM, HTI, LBR, MDG, NIC, POL, TZA, URY
2009	4	BRN, CHL, DMA, FSM, GMB, GUY, HND, KIR, NRU, PAN, PLW, SGP, VCT
2009	5	LBY, VEN
2009	6	OMN, SYR, UKR
2009	7	JPN, THA, TJK
2009	8	BGR, TKM, UZB
2009	9	ISR
2009	10	PRY
2009	11	UGA
2010	0	ARG, ARM, AZE, BGR, BIH, BLZ, CAN, CHE, CHN, COD, COL, CUB, CZE, DEU, FRA, GBR, GNB, ISL, ITA, JOR, LIE, LKA, LSO, MYS, NIC, PAK, PAN, PHL, PLW, PSE, QAT, SGP, SLV, THA, TLS, VAT, WSM
2010	1	AGO, ALB, AUS, AUT, BFA, BLR, COG, DNK, EGY, ERI, EST, ETH, FSM, GHA, GIN, GNQ, HRV, IRL, IRQ, KEN, KHM, KIR, KOR, KWT, LBR, LTU, LUX, MDA, MHL, MKD, MMR, MRT, NOR, NZL, PNG, PRK, SDN, SLB, SVN, SWE, SYR, TCD, TZA, VNM, YUG
2010	2	BDI, BGD, BHS, BRA, BRB, BTN, CAF, DMA, GMB, GRD, GTM, JAM, KNA, LCA, LVA, MLI, NER, NRU, OMN, ROU, SWZ, SYC, TON, TUN
2010	3	ARE, DOM, DZA, HUN, IDN, IND, JPN, KGZ, MAR, MEX, MLT, NGA, NPL, POL, PRT, SVK, URY, VUT
2010	4	AND, FIN, KAZ, MCO, MNE, MNG, MOZ, MUS, MWI, NAM, SLE, TJK, TTO, TUV, ZAF
2010	5	CHL, CPV, CRI, ESP, HND, HTI, PRY, RWA, SMR, STP, SUR, UGA, VEN, ZMB, ZWE
2010	6	ATG, BRN, CIV, GUY, SEN, VCT
2010	7	ECU, GEO, IRN, PER, USA
2010	8	AFG, CYP, MDV, UKR
2010	9	FJI, GAB, LBN, RUS, SOM, TUR
2010	10	BHR, GRC, LBY, YEM
2010	11	BEN, BWA
2010	12	BEL, LAO, NLD, TGO
2010	13	BOL
2010	14	CMR
2010	15	COM
2010	16	ISR
2011	0	AGO, ALB, AND, AZE, BEN, BFA, BHS, BTN, BWA, CIV, COL, COM, CZE, DNK, DZA, ETH, FJI, GIN, GMB, GNB, GNQ, GTM, HND, IND, KGZ, KOR, LBN, LSO, MDG, MNG, MOZ, MRT, PAN, PLW, POL, PRT, QAT, ROU, RUS, RWA, SDN, STP, SVK, SVN, SWZ, TCD, TGO, TUN, TZA, UGA, UKR, VAT, VUT, YEM, ZAF, ZMB, ZWE
2011	1	AFG, AUT, COG, DJI, EGY, ERI, ESP, GHA, GRC, GRD, HRV, HUN, IDN, ITA, JAM, KHM, LAO, LBR, LKA, LVA, MAR, MCO, MDV, MLI, MLT, MWI, PER, PRY, SGP, SLB, SYR, THA, TLS, URY, VEN, VNM, YUG
2011	2	ARM, AUS, BGR, BLR, BRB, GUY, IRL, KAZ, LUX, MKD, MYS, NOR, NPL, PAK, SOM, TUR
2011	3	BEL, BGD, BRN, CAF, CHL, DEU, EST, FIN, GBR, IRQ, LIE, LTU, NER, NGA, PHL, PNG, SLE, SMR, SUR, TUV
2011	4	BHR, BIH, CHN, CMR, CYP, GAB, JPN, KWT, MDA, MMR, MNE, OMN, TKM, UZB
2011	5	ARG, ATG, BRA, CHE, CPV, CRI, CUB, ECU, GEO, JOR, LBY, NIC, NLD, SWE, USA, VCT
2011	6	BLZ, DMA, FSM, ISL, KIR, KNA, LCA, MHL, MUS, NRU, NZL, TTO, WSM
2011	7	BOL, DOM, FRA, IRN, ISR, MEX, PSE, SEN
2011	8	BDI, COD, SSD, TJK
2011	9	ARE, KEN, NAM, TON
2011	10	CAN, SLV
2011	11	HTI
2011	12	PRK

Table 11: Infomapped communities 2008-2011

Year	Community	ISO Country Code
2012	0	AGO, ALB, AUT, BDI, BHS, BLZ, BRB, CAF, COG, COL, COM, CPV, DJI, DNK, ESP, FRA, GAB, GEO, GIN, GMB, GRD, GTM, GUY, IRL, ITA, JOR, KHM, KIR, LBR, LUX, MDA, MDV, MLI, MLT, MUS, NAM, NGA, PAN, PRT, RWA, SDN, SUR, SWE, SWZ, TCD, TUV, UGA, UKR, USA, WSM, ZAF
2012	1	AZE, BIH, BRN, BWA, CHL, CMR, CYP, HTI, KNA, LAO, LCA, LSO, MAR, MCO, MOZ, MRT, NPL, PER, POL, SEN, SOM, SVK, THA, TTO, TUN, VAT, VCT
2012	2	BFA, BHR, BLR, CAN, CRI, CUB, DEU, DZA, ERI, FIN, IDN, JAM, NIC, SAU, TKM, VEN
2012	3	BEN, BGD, FJI, GHA, MHL, NZL, PLW, PNG, SLE, SSD, STP, SYC, TLS, TZA, VUT
2012	4	ARG, ATG, BOL, ECU, IRQ, LBY, MYS, NER, PRY, SLV, URY, ZWE
2012	5	ARE, CHE, LBN, OMN, QAT, RUS, SGP, VNM
2012	6	BGR, CZE, GRC, KOR, LIE, LVA, MNE, ROU, SMR, YUG
2012	7	AFG, BEL, BRA, COD, MDG, NLD, SVN, TGO, TUR
2012	8	AUS, DMA, DOM, LKA, NOR, NRU, PSE, YEM
2012	9	FSM, HND, MEX, MWI, SLB, TON, ZMB
2012	10	CHN, ETH, GBR, GNQ, IND, ISL, KEN, TJK
2012	11	EGY, KAZ, KWT, SYR, UZB
2012	12	ARM, BTN, LTU, MMR
2012	13	EST, HRV, MKD, PHL
2012	14	AND, IRN, PAK, PRK
2012	15	CIV, JPN, KGZ
2012	16	HUN
2012	17	ISR
2012	18	MNG
2013	0	AND, ARM, ATG, AUS, BEL, BGR, BHS, BIH, BLR, BWA, COD, COG, CRI, CUB, CYP, CZE, DEU, DMA, DOM, ESP, EST, FIN, FSM, GMB, GNQ, GRC, GTM, GUY, HND, HRV, IND, IRL, ISL, ITA, JAM, KHM, KNA, LBN, LCA, LSO, LTU, LUX, MCO, MDA, MDG, MEX, MKD, NAM, NGA, NIC, NLD, NZL, PAK, PER, POL, PRT, PSE, ROU, RUS, RWA, SDN, SMR, STP, SWE, SYR, TTO, TUR, TZA, VAT, VCT, WSM, YUG, ZAF, ZWE
2013	1	CIV, COM, CPV, GNB, HTI, KIR, LBR, LKA, MLI, MLT, MMR, MNE, MNG, MOZ, NOR, NPL, NRU, SEN, SYC, TGO, UKR, ZMB
2013	2	BGD, BLZ, DZA, FJI, GIN, GRD, KAZ, KWT, MDV, MUS, OMN, PNG, SLE, THA, TLS, TUV
2013	3	BRA, CHE, CHL, COL, ECU, ERI, GEO, LIE, SOM, SVN, VEN
2013	4	BRN, CMR, DNK, HUN, LVA, MWI, PAN, PHL, SGP, SWZ, TJK, UGA, VUT
2013	5	BDI, CAF, ETH, GAB, IDN, KGZ, LAO, SSD, SVK, TKM
2013	6	ARE, BHR, EGY, FRA, GBR, IRN, LBY, MRT, PRK, QAT, TUN, YEM
2013	7	AFG, CHN, IRQ, JPN, MYS, PRY, SLV, VNM
2013	8	AGO, AUT, AZE, BEN, BFA, KOR, MAR, NER
2013	9	BRB, BTN, MHL, PLW, SLB, SUR, TON, UZB
2013	10	ALB, CAN, GHA
2013	11	JOR, USA
2013	12	BOL
2013	13	ISR
2013	14	TCD
2013	15	URY
2013	16	ARG
2014	0	AFG, AND, ARG, ATG, AUS, AZE, BEN, BGD, BIH, BRA, BRN, BTN, CHL, CIV, COL, COM, CPV, CRI, CUB, DOM, DZA, ECU, ERI, FIN, FJI, FSM, GAB, GHA, GNB, GUY, HND, HRV, HUN, IRL, ISL, JAM, KAZ, KGZ, KIR, KOR, KWT, LBN, LIE, LSO, LUX, LVA, MCO, MDV, MEX, MHL, MLI, MNE, MNG, MOZ, NAM, NER, NGA, NIC, NLD, NPL, NRU, NZL, PAN, PER, PHL, PLW, POL, PRK, PRT, PRY, RWA, SDN, SGP, SLE, SMR, SOM, SUR, SWE, SYR, THA, TJK, TON, TUN, TUV, UGA, URY, UZB, VCT, VEN, VNM, YEM, YUG, ZAF, ZMB
2014	1	AGO, BFA, BHS, BRB, CAF, CMR, COD, COG, DMA, GRD, GTM, HTI, KHM, LAO, LCA, LKA, MDG, MMR, MRT, MUS, PNG, SLV, STP, SWZ, SYC, TCD, VUT, ZWE
2014	2	ALB, AUT, BEL, BLR, BOL, CHN, CZE, DEU, DNK, EST, GEO, GMB, JPN, LBY, LTU, MKD, NOR, OMN, PAK, RUS, SVK, SVN, TLS, VAT
2014	3	ARE, BHR, EGY, FRA, GBR, IRN, IRQ, ITA, JOR, MYS, PSE, QAT, TUR, UKR, USA
2014	4	BDI, BWA, CAN, ETH, MAR, MWI, SEN, TGO, TTO, TZA, WSM
2014	5	ESP, IDN, MDA, MLT
2014	6	BGR, CHE, CYP, GRC, IND, ROU
2014	7	ARM, TKM
2014	8	BLZ, GNQ, KEN, SSD
2014	9	GIN, KNA, SLB
2014	10	ISR
2014	11	LBR

Table 12: Infomapped communities 2012-2014