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Nobody Notices It? Qualitative Inequalities of Leading Publications in Communication and Media Studies Research

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This article examines the publication practices in the field of communication and media studies (CMS) by analyzing the main patterns and features of Scopus-indexed journals. I generated randomly selected samples from Q1 to Q4 quartiles and investigated the connections between the publisher and the content of a given periodical, the internationality and center-periphery indexes, and coauthor networks. Using the results to test the paradigm of dependency theory in CMS, I find that the publisher's location eminently affects the content of a journal. Authors from dependent countries are underrepresented in the most prestigious journals, and, although authors from developed countries frequently collaborate with one another, their coauthorship with authors from dependent countries is idiosyncratic; therefore, authors from dependent countries tend to look for alternative ways to produce noticeable publications.

Keywords: dependency theory, communication and media studies, science communication, leading publications in communication and media studies, network analysis

Science is usually thought of as one of the most fair among social institutions. However, many social scientists and philosophers of science have pointed out that science is not egalitarian in offering equal possibilities for every individual, irrespective of his or her social and personal background (Erfanmanesh, Tahira, & Abrizah, 2017; Saurin, 2016). Shenhav (1986) describes the dependence of academic research on nonacademic, external factors such as politics, the economy, or the requirements of governmental or private clients. Moreover, as Kuhn (1962) and neo-Kuhnian scholars (Mullins, 1973) state, the field of science is full of "invisible colleges" (Price, 1965), which form cognitive theory groups with shared ideas, presuppositions, and methodological favorites (Martin, Orduna-Malea, Ayllon, & Lopez-Cozar, 2015).

In addition to different scientific communities using different methods and techniques, cultural, language, and epistemological differences are also decisive (Toth, 2012). The subordinate or even marginal role of culturally, epistemologically, or simply geographically distant countries gave rise to dependency theory (Prebisch, 1959). The theory states that there is a hegemonic relationship between dependent and dominant states in the same economic system. The most important propositions of

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Prebisch's theory are that (1) the center derives (at least partly) its wealth from the periphery; (2) the relationship between subdominant and dominant states is an enduring one; and (3) the only chance for a dependent area to become a center is if it breaks away from the old, dominant center (Love, 1980).

Ferraro (2008) proposes an economic and historical explanation for this phenomenon, and he emphasizes three common features of the usual definitions of dependency. The first feature is that it characterizes and clearly distinguishes two sets of states. Theorists refer to these two sets as center/periphery, dominant/dependent, or metropolitan/satellite states, where the dominant states are typically the well-developed, industrial countries, and the dependent states are Latin American, Asian, and African countries with low gross domestic product. The second feature emphasizes the role of external forces in the case of dependent states, which "include multinational corporations, international commodity markets, foreign assistance, communications, and any other means by which the advanced industrialized countries can represent their economic interests abroad" (Ferraro, 2008, p. 59). Finally, the third feature is that the relations between dependent and dominant states are dynamic, which not only reinforces but intensifies the patterns of inequality. In other words, as Arunachalam (2002) suggests,

> In reality there are limitations to the universality of science—largely a result of the differences in the social, intellectual, and economic structures of the different civilizations. In the real world, production and efficient utilization of scientific knowledge are highly concentrated in a few countries. A large majority of countries—those on the periphery— contribute precious little to the world's growing pool of scientific knowledge. (p. 5)

Based on his extensive research on third-world scientific communities—especially in India—Arunachalam (2002) emphasizes seven features of a dependent country in terms of scientific research: (1) poor funding; (2) the absence of a viable scientific community; (3) inadequate access to relevant information and inadequate communication within the local scientific community and with international invisible colleges; (4) an inability to contribute to hot/current research topics; (5) a lack of originality, which has been called by Alatas (2000) the mimesis of the West; (6) weak infrastructure and institutions; and (7) an excessive dependence on science done in the center. All of these features cause serious inequalities for dependent countries' contributions to science.

Similar results were found in the research of Gerke and Evers (2006), who investigated the knowledge production in South Asian societies. They also emphasized the disadvantages of being a dependent-country scientist. Other research states, "The great majority of scientific articles are published by a small group of countries most occupying the highest level of economic welfare and social development" (Zanotto, Haeffner, & Guimaraes, 2016, p. 1790). The interrelations between gross domestic product and scientometric indicators have also been widely investigated (Vinkler, 2008).

The concept of the Matthew Effect for Countries (MEC) has been elaborated for those countries with poor conditions in science. According to the coiners of the concept, the "MEC is observable in all main scientific fields that were investigated. Over fifteen years, the MEC has been relatively stable" (Bonitz, Bruckner, & Scharnhorst, 1997, p. 407). Moreover, they concluded that the world of publication output

could be separated into the contributions of a few "winner" and many more "loser" countries. The authors also found that loser-country scientists were cited less than winner-country scientists, even in cases where their work had been published in the same journal.

According to dependency theory, there are two ways to evolve: Dependent countries can either break away from the old, dominant center (Love, 1980, p. 46), or they can cooperate with scientists from developed countries. "Scholars in small countries have practically no other choice than to find collaborating partners from outside their country" (Teodorescu 2011, p. 714). Schmoch and Schubert (2008) go on to point out that "there seems to be a tacit agreement among scientists and politicians that internationality and, in that course, co-publications are positively contributing to the scientific performance" (p. 364). But it is difficult for an author from the periphery, and many scientists emphasize the important role of collaborative work. Fernandez, Farrandiz, and Leon (2016) state that the quality of research would be enhanced with cooperation, because (1) it is easier to solve complex problems with scientists from different backgrounds and knowledge, (2) the internal quality control is higher than in the case of single-authored papers, (3) it enhances learning from partners, and (4) it creates social networks (p. 1073). But the authors also point out that geographical, institutional, organizational, and social distance greatly hinder scientific collaboration, so the above-mentioned features, nine times out of ten, apply to scientists from similar backgrounds.

Schubert and Sooryamoorthy (2009) conducted important research on not only scientific collaboration but "the motives and modes of collaboration in the context of developing countries" (p. 181). Their example involved cooperation between German and South African authors; the former is a typical center, and the latter is a typical periphery country. Based on the center-periphery model of Kahveci, Southerland, and Gilmer (2008), the authors introduce the concept of marginality:

> Many scientific opportunities, such as collaboration, that open up to more central units cannot be exploited at the periphery. In fact, the important fact about marginality is that it is commonly not a result of being a bad researcher but can also work the other way round: you are not marginal because you performed badly in the past. Rather, you perform badly because you were already marginal in the past. (Schubert & Sooryamoorthy, 2009, p. 183)

The authors hypothesized that South African scientists would choose their partners carefully, seeking very central research partners. They also hypothesized that, because central researchers generally are not interested in working with peripheral partners, marginality might lead to rejection of collaboration offers. The results of the research corroborated both hypotheses: The data indicated that Germany's cooperation with South African authors is idiosyncratic, while South African scientists chose German partners strategically. Based on research by Wang and Wang (2017), similar to the situation between Germany and South Africa, "evidence shows that academic collaborations between China and the EU28 have been mainly set up by Chinese researchers" (p. 124).

Coauthorship and Publication Possibilities in Communication and Media Studies

Despite some changes in the concept of scientific "impact" (Bornmann & Haunschild, 2017), scientific work is still measured in terms of the classical understanding of impact—namely, citations. Platforms such as Web of Science and Scopus help us evaluate scientific research, because "the coverage of a publication in Scopus or Web of Science is seen in itself as an expression of research quality and of internationalization" (Siversten, 2016, p. 357). According to Google Scholar Citations, almost 90% of highly cited documents in Bibliometrics are journal articles, demonstrating that peer-reviewed scientific journals are the most important source of research and evaluation (Martin et al., 2015, p. 19).

Not only authors, but also journal editors should consider possible citation measures. Canavero, Franceschini, Maisano, and Mastrogiacomo (2014) investigated the process by which journal editors aim to select what will become highly cited articles and authors with a strong reputation. Being indexed in Web of Science, Medline, or Scopus is a challenge for editors seeking to ensure their journals are highly cited and internationally visible (Ashtaneh & Masoumi, 2017). So while publishers and editors strive for high impact factors for their periodicals and try to anticipate the citation productivity of possible authors' articles, legions of authors work toward being published in those journals with a high reputation. Because coauthorship is usually thought to be one of the best ways for a successful publication output (Glänzel, 2001), most authors try to find ways to connect with authors, journals, and research fields with the highest reputations. But the mutual efforts of journal editors, indexing databases, and potential authors could lead to serious biases. For example, as Guerrero-Bote & Moya-Anegón (2012) put it, all measuring methods reinforce thematic and methodological biases: citing journal's prestige and its research focus deeply define the rank of the cited journal, so it's reasonable to publish articles which are 1) close to the scope of high ranked journals, and 2) close to the methods of high ranked journals.

In an analysis of the co-citation networks of nine leading journals in communication and media studies to identify the main clusters of the field, Freelon (2013) found that the most prestigious journals tend to publish mainly quantitative, empirical papers with an American focus. In an analysis of communication journals indexed by Web of Science, Lauf (2005) found that (1) the major international journals in CMS are almost exclusively U.S. journals, and only a few are international in the sense that they contain papers from different countries; and (2) the same bias could be found among editorial members, because some world regions are not represented at all in the editorial boards of leading journals of the field. Lauf conjectures on a correlation between the national diversity of the publication output and the national diversity of the editorial board of a given journal:

> We cannot tell whether the review process leads to a higher or lower national diversity because information about the review process was missing. However, what we can say is that 84 percent of all managing editors are from the U.S. With editorial boards consisting of less than five percent international membership, nearly one-third of all journals are not prepared to review international manuscripts, leaving out possible external reviewers. (p. 22)

Demeter (2017) constructed a database from more than 1,400 authors of 620 articles published in Scopus Q1 journals to identify the winner countries and the peripheral countries in communication and media studies. The study revealed that the Matthew effect strongly acts upon the field of CMS, and a very clear center-periphery structure stands out, with some top hubs with strong relations among them and many peripheral countries with weak links.

The above discussion can be summarized briefly as follows: (1) Scientific achievement is measured by the scientist's presence in peer-reviewed journals; (2) scientific journals are also assessed by the number of citations and references, so it is in journals' interest to increase the number of citations—thus, journals will prefer more citable authors; (3) authors from developed countries are cited more than authors from dependent countries; (4) unlike authors from dependent countries, authors from developed countries have similar education, epistemological perspective, preferred methods, research topics, institutions, and culture—all of which increases the possibility of cooperation. Based on these observations and findings, I propose the following four hypotheses for the field of communication and media studies:

H1: The location of the publisher will correlate with the national diversity of journal articles.

H2: Authors from developed countries will be overrepresented in most prestigious journals.

H3: Authors from developed countries will frequently cooperate with one another, but their coauthorship with authors from dependent countries will be idiosyncratic.

H4: Authors from dependent countries try to strategically work with authors from developed countries, so collaboration among dependent countries will be infrequent.

Methods

The first step in this research was to determine bibliometric measures for the entire corpus of communication journals included in Scopus (n = 277). National diversity was analyzed in terms of (1) the world regions of the publishers and (2) the world regions of the publications, looking for possible correlations (Spearman's rho and Pearson correlation coefficient). In earlier research, Lauf (2005) found positive correlations between the national diversity of the research output and the national diversity of the editorial board of a given journal. I hypothesize that, in addition to the composition of the editorial board, the place of publication will correlate with the national diversity of the publication output.

Ten world regions were categorized as follows: the United States, the United Kingdom, Western Europe, Asia, Oceania, Africa, South America, the Middle East, Eastern Europe, and Russia. Also established were two broader categories of developed regions and dependent regions. Developed regions include the United States, the United Kingdom, Western Europe, Oceania, and the developed parts of Asia (see Lauf, 2005; Pooley & Park, 2013, for categorization standards). Dependent regions include Eastern Europe (with Russia), Africa, the developing parts of Asia, South America, and the Middle East.

Because the total corpus of 7,554 papers with more than 21,300 authors would be unmanageable, a stratified random sample (n = 40) was selected from the total population of journals (n = 277). With a computerized random number generator, 10 journals were selected from each of four categories from Q1 to Q4, and I analyzed all the articles published in the journals in 2016. Scopus—after a rigorous selection process that could last for years—indexed 277 journals in CMS in 2016. These journals were divided into four parts: Q1 includes journals with the highest impact (highest average number of weighted citations, which is expressed by SCImago Journal Rank (SJR indicator); Q2, Q3, and Q4 represent journals with successively lower reputations. Table 1 lists the 40 journals selected for analysis.

This sample size has a confidence interval of +/− 14.4 by confidence level 0.95. The entire sample representing all four SCImago categories consists of 2,433 authors with 2,755 connections, where connections refer to collaboration among authors in the form of coauthorship.

Table 1. Randomly Selected Journals From Q1 to Q4 in SCImago–CMS.

SCImago place	Rank	Publisher location	Journal name
58	Q1	United Kingdom	*Communication Reports*
25		United Kingdom	*Group Processes and Intergroup Relations*
38		United Kingdom	*Communication Monographs*
19		United States	*Written Communication*
43		United Kingdom	*Health Communication*
53		United Kingdom	*Discourse and Society*
44		United States	*Public Relations Review*
40		Netherlands	*Poetics*
54		Germany	*Journal of Media Psychology*
33		United States	*International Journal of Strategic Communication*
122	Q2	United Kingdom	*Media History*
75		United States	*Games and Culture*
90		Spain	*Profesional de la Informacion*
72		Germany	*Communications*
118		Germany	*Intercultural Pragmatics*
117		United Kingdom	*Journal of Intercultural Communication Research*
107		United States	*Journal of Communication Inquiry*
85		United Kingdom	*Quarterly Journal of Speech*
89		United Kingdom	*Visitor Studies*
83		United Kingdom	*Language and Intercultural Communication*
189	Q3	Netherlands	*Tijdschrift voor Communicatiewetenschap*
161		United Kingdom	*Chinese Journal of Communication*
158		United Kingdom	*Archives and Manuscripts*
154		United Kingdom	*Communicatio: South African Journal for Communication Theory and Research*

151		Croatia	*Medijske Studije*
183		Netherlands	*Journal of Asian Pacific Communication*
163		Spain	*Historia y Communicacion Social*
136		United States	*American Journal of Semiotics*
142		United States	*Journal of Mass Media Ethics*
139		Portugal	*Observatorio*
232	Q4	United Kingdom	*Studies in Documentary Film*
228		Spain	*Signa*
208		Croatia	*Medijska istrazivanja*
237		United Kingdom	*Creative Industries Journal*
238		Mexico	*Communicacion y Sociedad* (Mexico)
233		Switzerland	*International Journal of Work Innovation*
212		United States	*Global Media Journal*
257		India	*Media Watch*
249		Denmark	*Hermes*
219		Brazil	*Informacao e Sociedade*

The basic principle of simple random sampling is that a sample is representative of the population from which it is selected if all members of the population have an equal chance of being selected in the sample (Meng, 2013; Moore, McCabe, Alwan, Craig, & Duckworth, 2011). Because the sample for this study was created by computerized random sampling, the measures are thought to be representative of the population of all 277 Scopus-indexed journals in communication and media studies. However, I also conducted representativeness tests (see Table 2), which demonstrate that the sample is in fact representative of the population in each category, with some overrepresentation of the Western European region.

Table 2. Representativity Measures for the Sample.

	U.S	UK	Western Europe	Oceania	Asia	Middle East	South America	Africa	Eastern Europe	Russia	Total
Sample	399	64	422	48	103	15	72	12	21	26	1,182
Population	2,633	620	1,992	426	771	256	419	190	134	113	7,554
Proportion (sample)	34	6	35	4	9	1	6	1	2	2	100
Proportion (population)	35	8	28	5	10	3	6	2	2	1	100

Note. Spearman's rho $R = 0.8773$; $P = 0.00085$.

Noting the selected journals' publishers, the affiliations of the authors, and their collaboration patterns, I conducted an in-depth analysis of the intra- and international collaborations to discern patterns of collaboration at different levels in CMS. Nationality or country does not refer to the authors' birthplace or origin but rather to the location of their affiliations. I used the latest version (0.9.1.) of GEPHI visualization, exploration, and statistics software to conduct the analysis.

Results

Publishers

Analysis of the nationality of the publishers of all 277 journals in CMS reveals that in all categories, the United States, the United Kingdom, and the Netherlands dominate (see Figure 1). The United Kingdom, the United States, and the Netherlands are home to 95% of the journals in Q1. Of the 63 Q1-ranked journals, only three are not from the United Kingdom, the United States, or the Netherlands (two of the three are from Germany, and one is from Austria). The situation is similar in Q2, where the three dominant countries are home to 75% of the publishers; with some German and Spanish contributions, the top five countries have 88% of the journals. In Q3, the top three countries are home to 80% of the journals, and the rest of the journals are almost equally distributed among 11 other countries. Finally, the most countries are in Q4, but the contribution of the top three countries is still considerable at 71%. The number of countries consistently increases from Q1 to Q4: There are five countries in Q1, 13 in Q2, 14 in Q3, and 19 in Q4. Overall, the 277 journals in CMS are published in 27 countries: 36% are published in the United States, 36% are from the United Kingdom, 8% have their origin in the Netherlands, and 20% of the journals are from countries other than the top three.

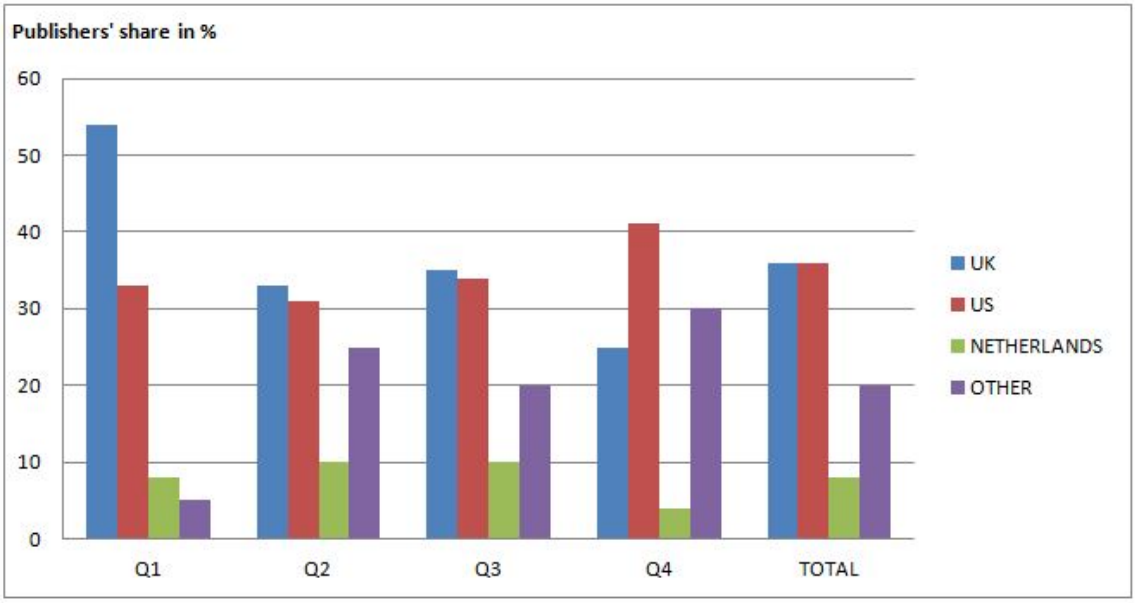

Figure 1. Publishers' participation in communication and media studies.

In a classification of publishers in developed and dependent countries, a more biased picture emerges (see Figure 2). The categorization is based on the Internet World Stats country list classification (2017). There are no dependent-country publishers at all in Q1; in Q2 and Q3, 6% of the publishers are in dependent countries; and in Q4, 11% of publishers are in dependent countries. Among the 277 Scopus-listed journals, more than 94% are published in a developed country.

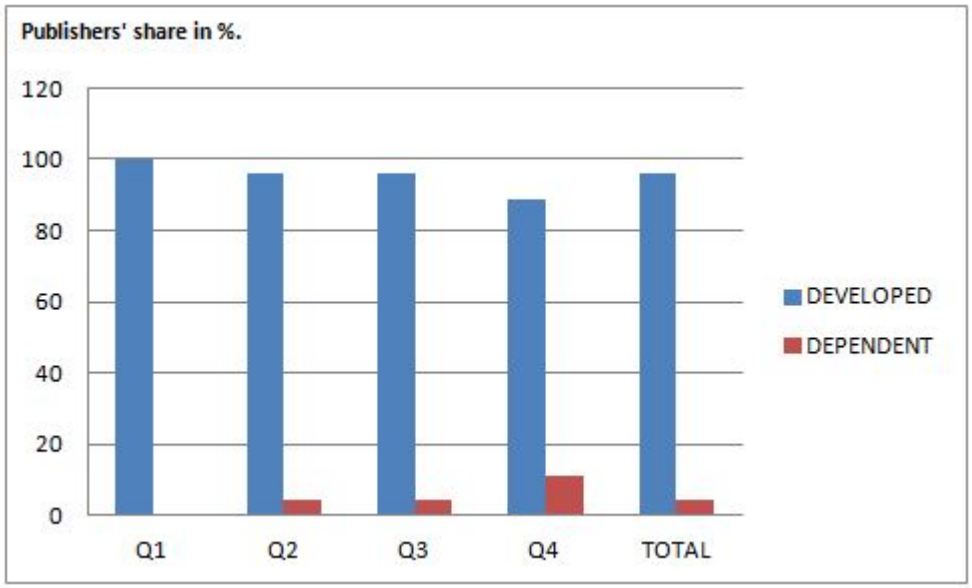

Figure 2. Developed-country and dependent-country publishers in communication and media studies

Figure 2. Developed-country and dependent-country publishers in communication and media studies. Numbers on the vertical axis show the publishers' share in %.

In the total corpus, only three countries publish more than 10 journals (United Kingdom: 100; United States: 98; Netherlands: 23). Germany and Spain each have 10 periodicals; Switzerland has five; Sweden and Brazil each have three; Australia, Colombia, Portugal, Croatia, and Malaysia each have two journals. All the other countries in the sample (Austria, Hungary, Taiwan, India, Mexico, Chile, Slovenia, Lithuania, New Zealand, Finland, France, Poland, Canada, and Italy) have only one title.

The same bias appears in the national diversity of articles. Of the 7,554 articles that were published in 2016, 2,633 are from the United States, 1,992 are from Western Europe, 771 are from Asia, 640 are from the United Kingdom, 426 are from Oceania, 419 are from South America, 256 are from the Middle East, 190 are from Africa, 134 are from Eastern Europe, and 113 are from Russia. The United States, the United Kingdom, and Western Europe comprise almost 70% of the publication output, and this number reaches 86% with the inclusion of developed regions of Asia and Oceania.

When seeking connections between the world regions of the publishers (X) and the world regions of the journal articles (Y) (H1), a significant correlation between the two variables emerges. With the Pearson correlation coefficient, it is $r = 0.73$, which is a moderate positive correlation; there is a tendency for high X variable scores to go with high Y variable scores (and vice versa). With Spearmen's rho, the value of R is 0.79, and the two-tailed value of P is 0.006 (SD = 3.02, covariance 7.22); by normal standards, the association between the two variables would be considered statistically significant.

In the simple random sample, the contribution of authors from dependent countries increases from Q1 to Q4: Their participation is 8.9% in Q1, 9.1% in Q2, 39% in Q3, and 46.9% in Q4 (H2). But it should be emphasized here that, unlike in Q1 and Q2, there are dependent-country journals in Q3 and Q4 that publish articles almost exclusively by authors from dependent countries. Without these journals that originate in dependent countries, the dependent-country contributions would be under 10% in Q3 and Q4, too.

Contribution Patterns

The contribution pattern is simple in Q1, with 65% U.S., 22.5% Western European, 6.32% Asian, and nearly 3% Oceanian (mainly Australian) authors—so more than 87% of the contributors in Q1 are from developed countries (see Figure 3).

As we can see from Figure 3, most North American and Western European authors collaborate almost exclusively with one another, and sometimes they form hubs as large as 12 authors. The same is true of Middle East countries, which also mainly collaborate with one another. The most common type of cooperation (after intranational collaboration) is the coauthorship of North American and Western European authors, followed by Asian and North American cooperation; other cross-cultural cooperation is idiosyncratic.

As shown in Figure 4, a typical article in Q1 is written by two authors. Single-authored articles are almost equally frequent, followed by those written by three authors. Only a few articles are written by more than seven authors, but some have 10 or more writers. The densest set of the distribution is obviously for articles that are authored by one to four writers.

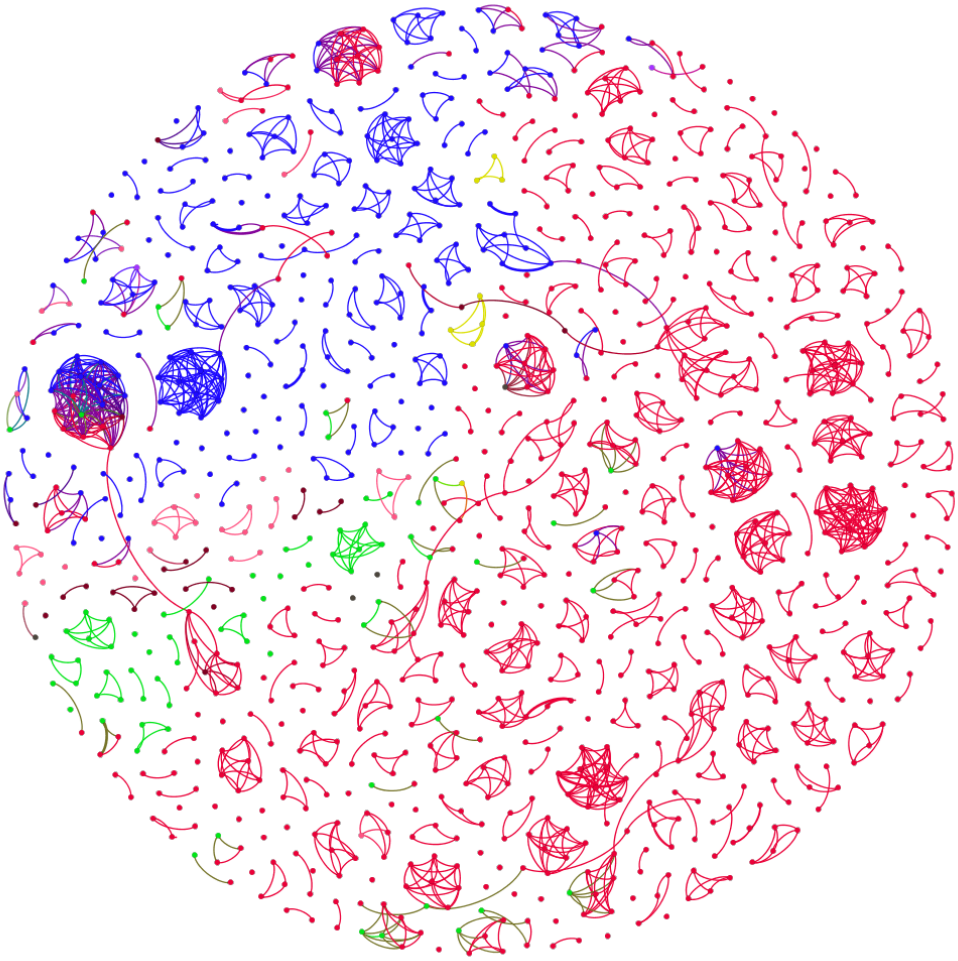

Figure 3. Countries' contribution in Q1.

Individual dots represent individual authors, and the links between them represent coauthorship. The color of the dots represents the world region from which the author submitted the article: red = North America; blue = Western Europe; green = Asia; yellow = Africa; black = South America; brown = Middle East; pink = Oceania; purple = Eastern Europe; orange = Russia; gray = no affiliation information.

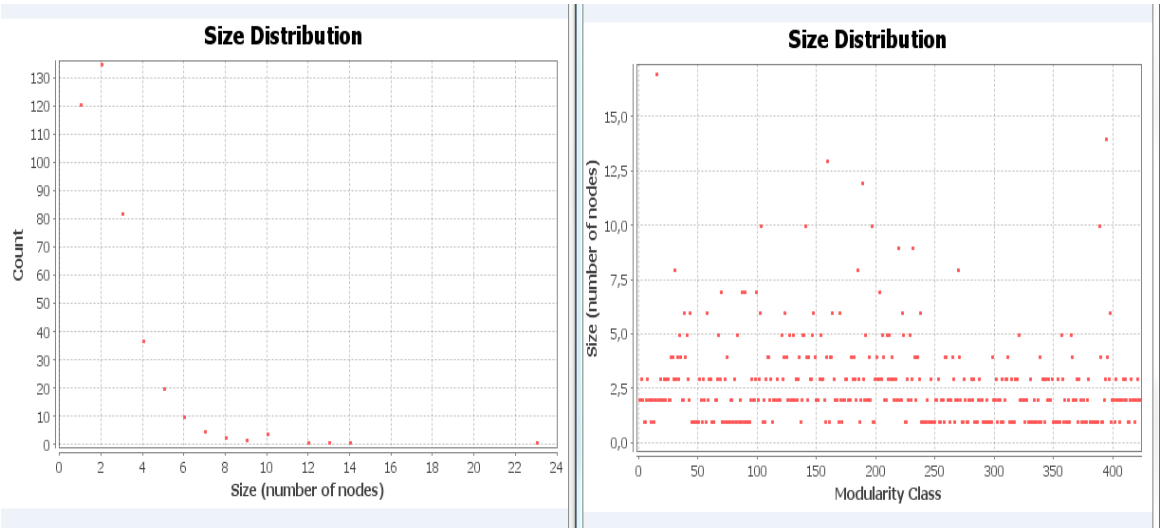

Figure 4. Size distribution in Q1. The number of nodes refers to the number of coauthors.

Results for Q2 indicate that 55% of the authors are Western European, 28.34% are North American, 5.67% are Asian, 3.63% are Middle Eastern, and 2% are Oceanian. More than 83% of the authors in Q2 are from the Global North (see Figure 5).

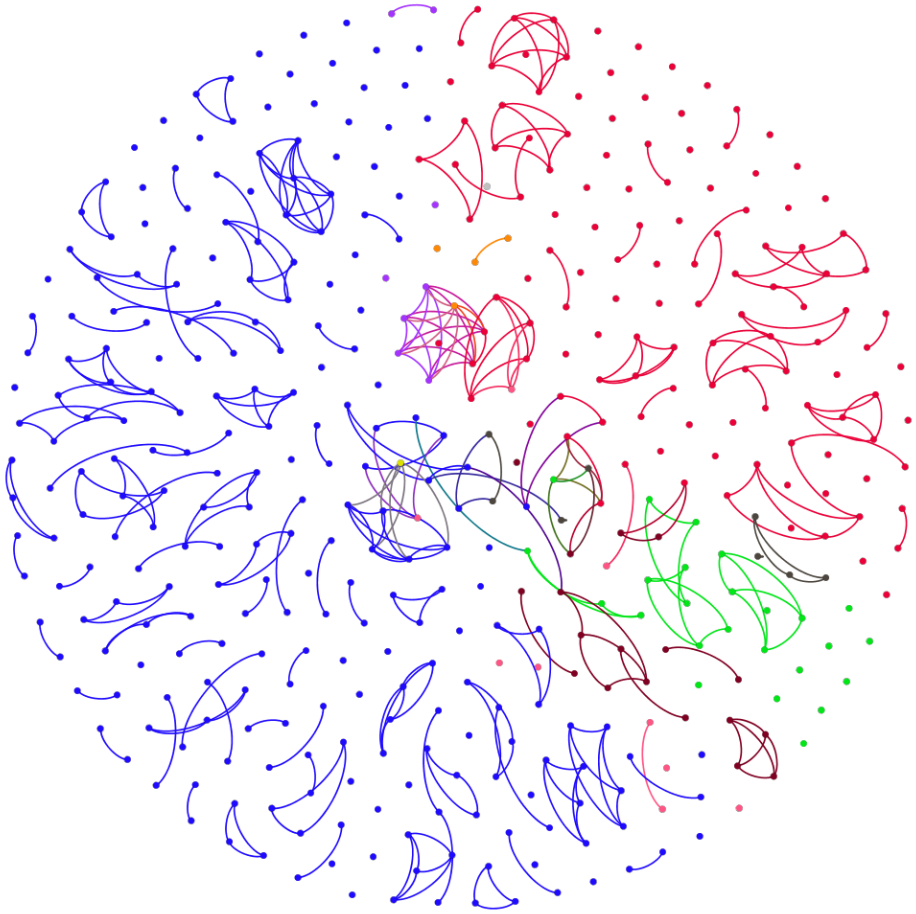

Figure 5. Countries' contribution in Q2. The color of the dots represents the world region from which the author submitted the article: red = North America; blue = Western Europe; green = Asia; yellow = Africa; black = South America; brown = Middle East; pink = Oceania; purple = Eastern Europe; orange = Russia; gray = no affiliation information.

A clear pattern stands out here with mostly intranational and intracultural cooperation. Most Western European countries collaborate exclusively with one another, and the same is true for North America, with the exception of the relatively frequent American–Asian contributions. The distribution scores (as shown in Figure 6) indicate that a typical article in Q2 is written by a single, Western European author, and articles by two or more writers are less common than they are in Q1. Articles with more than four authors are very rare, and papers with more than eight authors are totally absent. The densest set of the distribution is for articles that are written by one or two authors.

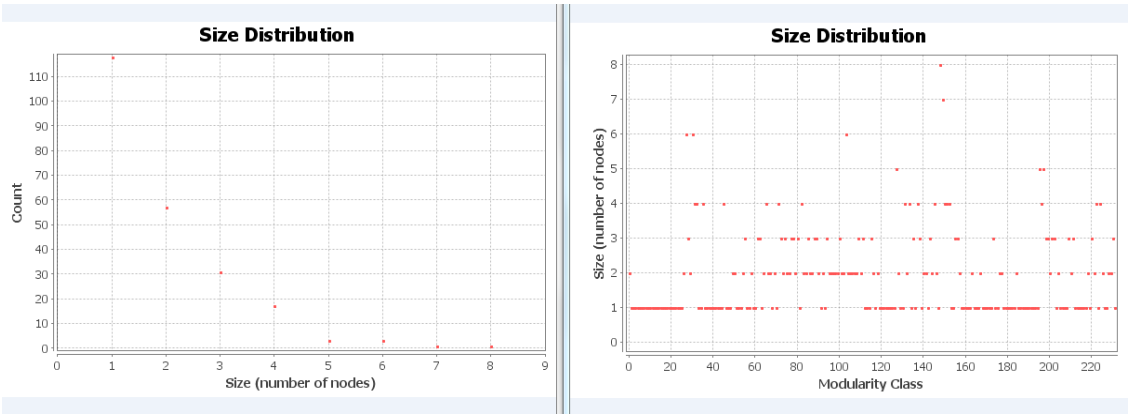

Figure 6. Size distribution in Q2. The number of nodes refers to the number of coauthors.

In Q3, a more complex picture emerges (see Figure 7). Though contributions from developed countries are still crucial (Western Europe: 50.42%; North America: 11%), many authors are from Africa (12.5%), Asia (12%), and Eastern Europe (5.29%). But these surprising patterns are easy to explain: The sample for Q3 includes *South African Journal for Communication Theory and Research*, with almost exclusively African authors, and the Croatian *Medjske Studije* (Media Studies), with almost exclusively Eastern European authors. The Latin American contributions are due to *Historia y Communicacion Social* and *Observatorio*, which both publish articles in Spanish and Portuguese. So although dependent-country contributions are much higher in Q3, this is due to thematic, national, and linguistic causes. In Q3 journals that are published in developed countries in English and that focus on general topics, dependent-country contributions are as low as they are in Q1 and Q2. The sources of the most common aberrations are discussed below.

Cross-cultural contributions are still infrequent in Q3, and this is true not only among developed countries but among dependent countries (such as in Africa) as well. African authors produce mostly single-authored articles or they form intranational hubs with other African contributors. The same could be predicated to Asia, North America, and Eastern Europe.

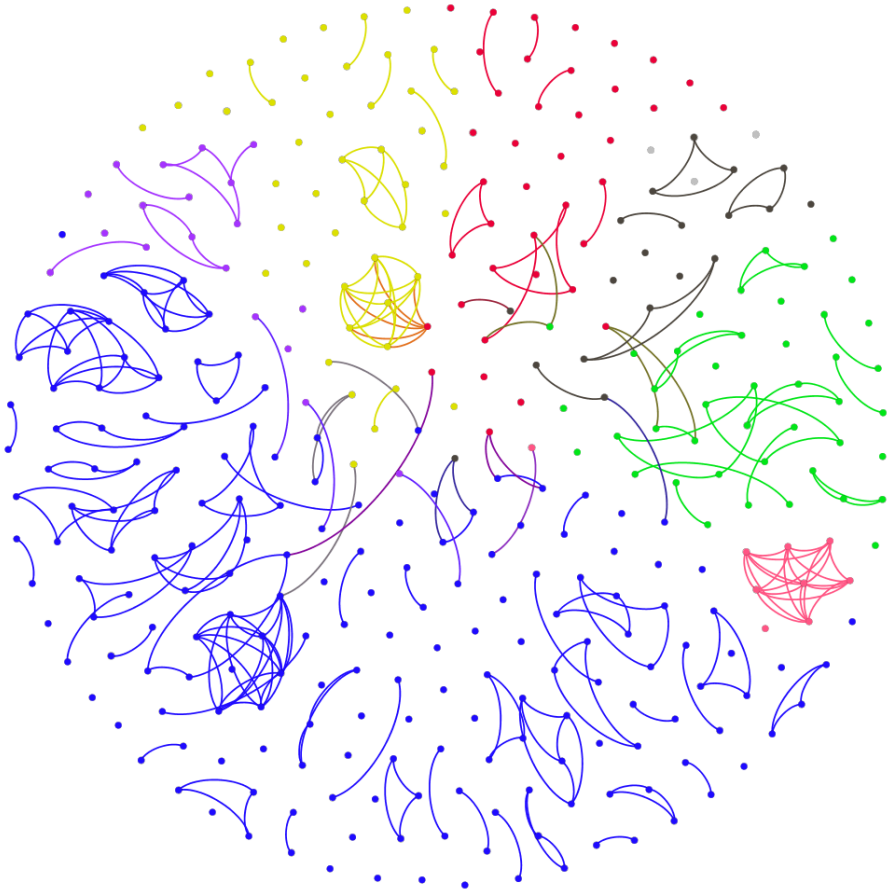

Figure 7. Countries' contribution in Q3. The color of the dots represents the world region from which the author submitted the article: red = North America; blue = Western Europe; green = Asia; yellow = Africa; black = South America; brown = Middle East; pink = Oceania; purple = Eastern Europe; orange = Russia; gray = no affiliation information.

Distribution scores show that single-authored articles are the most common type of paper in Q3, followed by articles with two and three authors. Papers with more than four authors are much less common than they are in Q2 or Q1. A typical article in Q3 is written by a single author (see Figure 8).

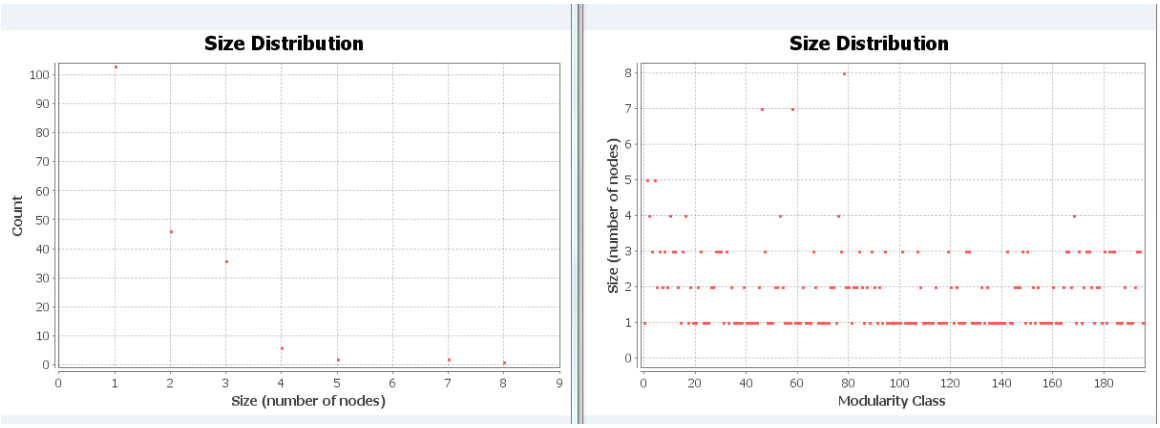

Figure 8. Size distribution in Q3. The number of nodes refers to the number of coauthors.

Q4 presents a different picture of science collaboration (see Figure 9), but the aberrations are still easy to explain. The main contributor here is Russia, but its contribution originates from only one source, the *Global Media Journal*. (This issue is further analyzed in the Discussion.) The next largest contributor is South America, due to two South American journals (*Communicacion y Sociedad* and *Informacao e Sociedade*) and a Spanish journal (*Signa*) in the sample. An Eastern European journal (*Medijska istrazivanja*) accounts for the significant Eastern European contribution. Western European and North American writers appear, but mostly in developed-country journals (with some important exceptions, which will be discussed later). Dependent countries contribute almost exclusively to their own periodicals, while authors from developed countries tend to participate mainly in developed-country journals.

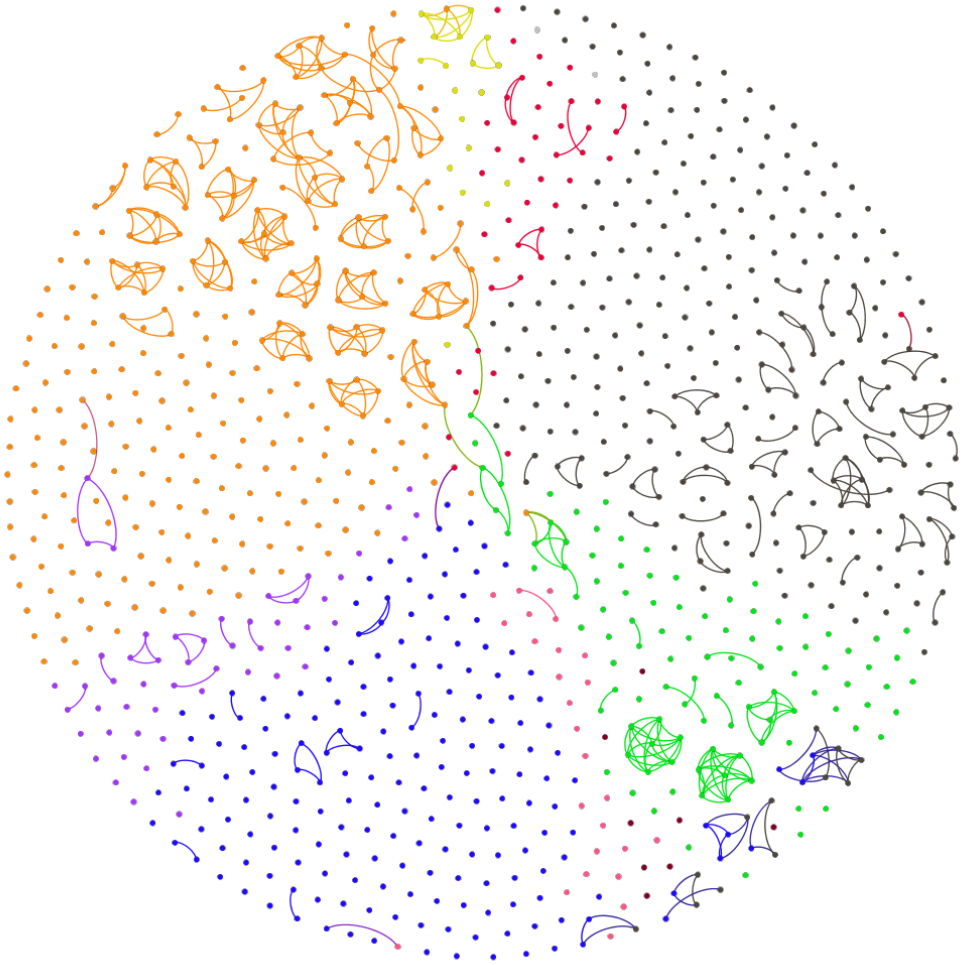

Figure 9. Countries' contribution in Q4. The color of the dots represents the world region from which the author submitted the article: red = North America; blue = Western Europe; green = Asia; yellow = Africa; black = South America; brown = Middle East; pink = Oceania; purple = Eastern Europe; orange = Russia; gray = no affiliation information.

The journals in Q4 have the highest number of single-authored articles (see Figure 10). Most articles here are written by only one contributor, and a few papers have two or three authors. The number of papers with five authors is relatively high, but this is due to the above-mentioned articles in the Russian *Global Media Journal*, which are typically written by five authors. Since *Global Media Journal* is the only periodical in the sample that demands a publication fee (US$1,519) from the authors, it is more cost-effective when the charge is split among several writers.

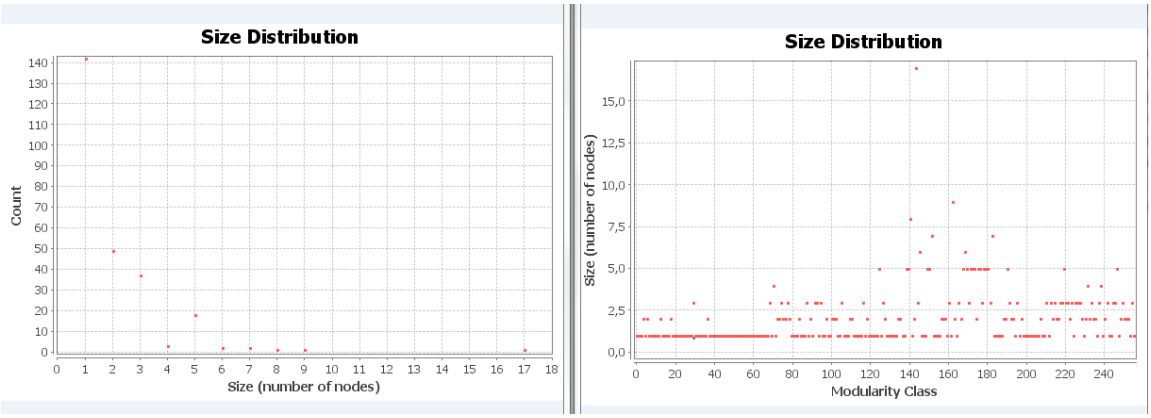

Figure 10. Size distribution in Q4. The number of nodes refers to the number of coauthors.

Finally, an examination of all the authors (Q1–Q4) reveals that 37.4% are North American and 31.65% are Western European (see Figure 11). Extensive collaboration does not occur between Western European and North American authors: With some exceptions, they conducted intra-American or intra-European research. North America and Western Europe publish almost 70% of the research in the field (H3), while all the other regions of the world are under 8% in their contribution (Asia: 7.89%; South America: 7%; Russia: 6.58%; Oceania: 2.63%; Africa: 2.55%; Eastern Europe: 2.3%; Middle East: 1.52%). As explained in the Discussion, even this marginal contribution of dependent countries (H4) is due to linguistic, thematic, or other factors; without journals that originate in dependent countries, journals that are thematically devoted to dependent countries, or even semipredatory journals, their contribution would be under one per thousand.

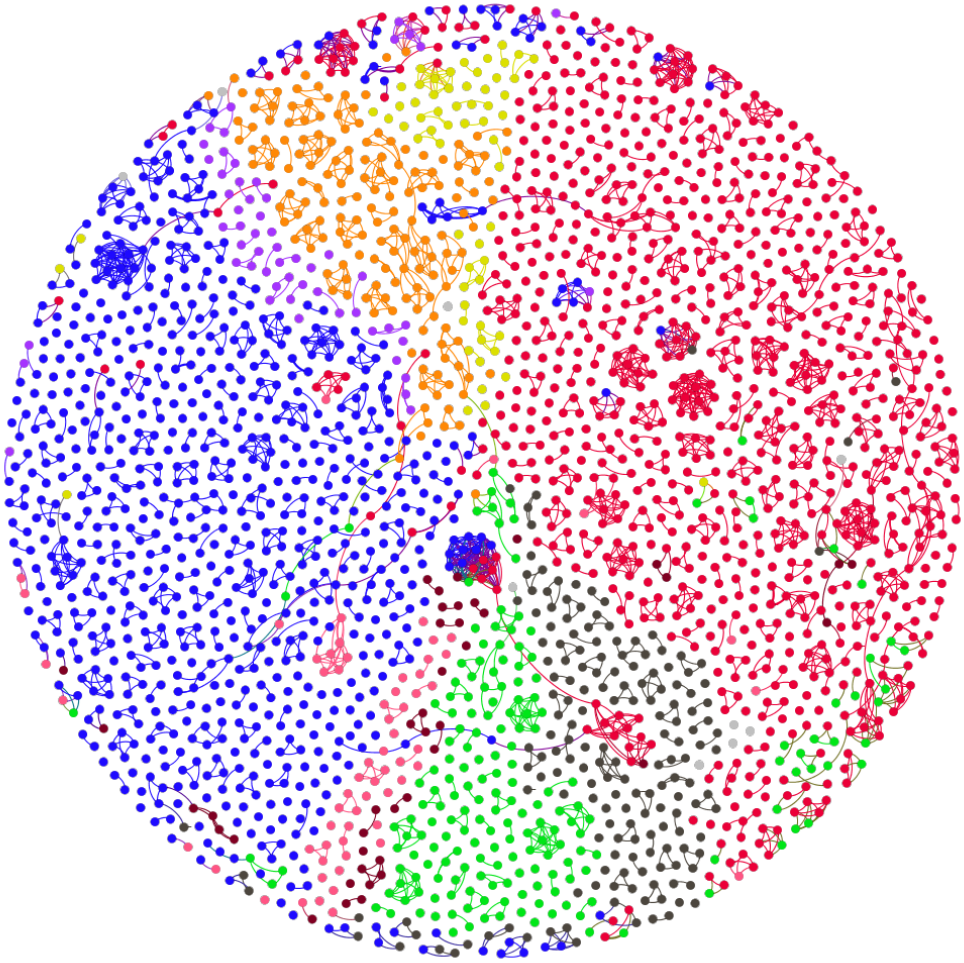

Figure 11. Countries' contribution in communication and media studies—the total picture. The color of the dots represents the world region from which the author submitted the article: red = North America; blue = Western Europe; green = Asia; yellow = Africa; black = South America; brown = Middle East; pink = Oceania; purple = Eastern Europe; orange = Russia; gray = no affiliation information.

The overall distribution scores for Q1–Q4 (see Figure 12) show that a typical CMS article is written by no more than three authors. Single-authored articles are most common, followed by papers with two authors and then papers with three authors. Articles with more than six writers are quite rare.

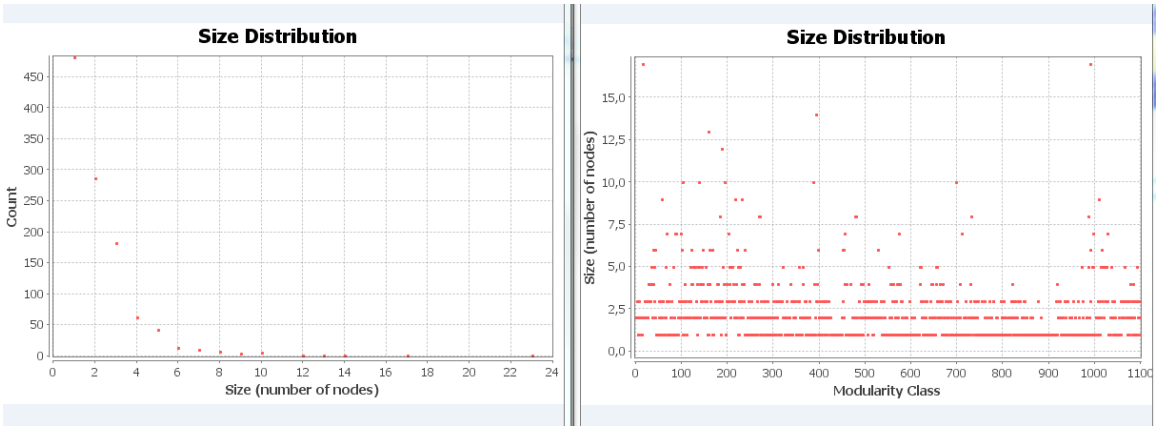

Figure 12. Size distribution in Q1–Q4. The number of nodes refers to the number of coauthors.

Internationality Indexes in Communication and Media Studies

After analyzing collaboration networks, I measured internationality indexes in all three categories (see the complete results in Table 3). The first variable is the *in-journal internationality index*, which is the quotient of the different countries represented by authors affiliated in those countries and the number of authors in a given corpus. Higher values represent more diversity in the countries of the authors' affiliations, while lower values mean that only a few nations are concerned. For example, the first five journals in Q1 published North American content in more than 80% of the total publication output, which means a low internationality value.

The *center-periphery index* measures dependent-country contributions, where lower values represent a stronger center-periphery bias. For example, three Q2 journals did not publish any articles in 2016 by authors affiliated with dependent countries, so their center-periphery index is zero. Finally, the category of leading country refers to the nation that has the most authors in a given journal. For example, all 10 journals in Q1 have the United States as their leading country since most of the authors in these journals in 2016 had a U.S. affiliation.

The data reveal some interesting trends. In Q1, irrespective of their place of publication or research focus, all journals publish mainly North American content with very low internationality and center-periphery indexes. The internationality index starts to increase in Q2, but journals in this class still publish almost exclusively articles from developed-country authors. Only in Q3 do we see the emergence of a center-periphery index, surely because of journals based in dependent countries. In Q4, both internationality and center-periphery indexes improve further (see Figure 13).

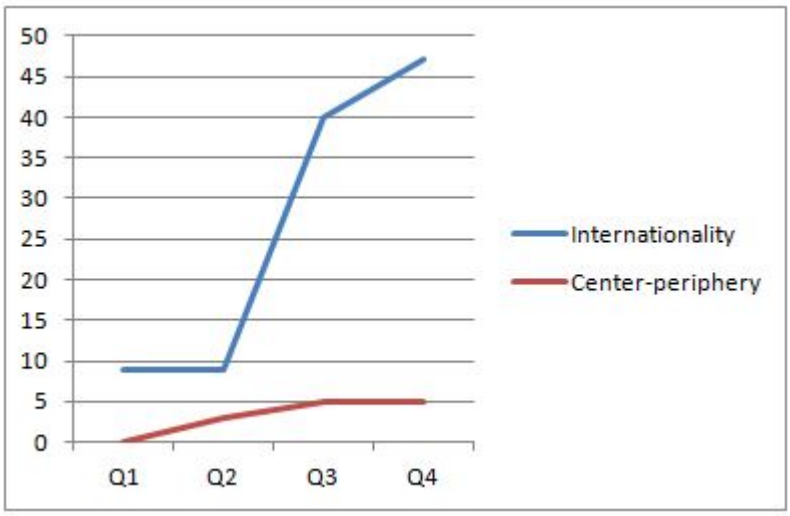

Figure 13. In-journal internationality and center-periphery indexes in Q1–Q4.

The total value for the Q1–Q4 in-journal internationality index is 26.01, and the total value for the Q1–Q4 center-periphery index is 2.95. The absolute leading country is the United States, which has leading contributions in 18 of the 40 journals.

Table 3. Q1–Q4 Country Contribution Measures in Communication and Media Studies.

Class	Publisher	Journal title	In-journal internationality index (no. of nations/no. of authors) ×100	Center-periphery index (dependent country authors/all authors) ×100	Leading country
Q1	United Kingdom	*Communication Reports*	14	7	United States (86%)
	United Kingdom	*Group Processes and Intergroup Relations*	10	3	United States (90%)
	United Kingdom	*Communication Monographs*	15	0	United States (99%)
	United States	*Written Communication*	4	6	United States (82%)

	United Kingdom	*Health Communication*	5	7	United States (77%)
	United Kingdom	*Discourse and Society*	29	37	United States (24%)
	United States	*Public Relations Review*	10	14	United States (66%)
	Netherlands	*Poetics*	20	5	United States (34%)
	Germany	*Journal of Media Psychology*	24	7	United States (34%)
	United States	*International Journal of Strategic Communication*	18	3	United States (48%)
		Q1 average	14.9	8.9	United States 10/10
Q2	United Kingdom	*Media History*	42	0	United States (15%)
	United States	*Games and Culture*	17	12	United States (25%)
	Spain	*Profesional de la Informacion*	7	5	Spain (76%)
	Germany	*Communications*	16	2	Germany (58%)
	Germany	*Intercultural Pragmatics*	58	16	Germany (24%)
	United Kingdom	*Journal of Intercultural Communication Research*	25	33	United States (38%)
	United States	*Journal of Communication Inquiry*	7	3	United States (96%)
	United Kingdom	*Quarterly Journal of Speech*	0	0	United States (100%)
	United Kingdom	*Visitor Studies*	18	0	United States (59%)
	United Kingdom	*Language and Intercultural Communication*	38	20	United Kingdom (16%) Spain (13%)
		Q2 average	22.8	9.1	United States (6/10)
Q3	Netherlands	*Tijdschrift voor Communicatiewetenschap*	6	0	Netherlands (48%)
	United Kingdom	*Chinese Journal of Communication*	26	83	China (51%)
	United Kingdom	*Archives and Manuscripts*	30	19	Australia (44%)

	United Kingdom	*Communicatio: South African Journal for Communication Theory and Research*	15	81	South Africa (66%)
	Croatia	*Medijske Studije*	12	87	Croatia (87%)
	Netherlands	*Journal of Asian Pacific Communication*	29	71	China (62%)
	Spain	*Historia y Communicacion Social*	9	7	Spain (93%)
	United States	*The American Journal of Semiotics*	36	18	United States (55%)
	United States	*Journal of Mass Media Ethics*	28	12	United States (76%)
	Portugal	*Observatorio*	20	14	Spain (54%)
		Q3 average	21.1	39.2	China (2/10) United States (2/10) Spain (2/10)
Q4	United Kingdom	*Studies in Documentary Film*	33	0	Finland (28%)
	Spain	*Signa*	21	18	Spain (75%)
	Croatia	*Medijska istrazivanja*	12	100	Croatia (64%)
	United Kingdom	*Creative Industries Journal*	31	15	Australia (54%)
	Mexico	*Communicacion y Sociedad (Mexico)*	21	74	Mexico (40%)
	Switzerland	*International Journal of Work Innovation*	28	0	Finland (57%)
	United States	*Global Media Journal*	6	96	Russia (75%)
	India	*Media Watch*	35	70	Malaysia (35%)
	Denmark	*Hermes*	46	0	Spain (31%)
	Brazil	*Informacao e Sociedade*	5	96	Brazil (96%)
		Q4 average	23.8	46.9	Spain (2/10)

Another trend appears in the connections between the places of publication and the authors of the corresponding journal. To illustrate this, a matrix was created to show (a) contributions in self-owned periodicals and (b) contributions in not-self-owned periodicals (see Table 4). The former shows the presence of authors from developed countries in developed-country journals and the contributions of authors from dependent countries in dependent-country periodicals. The latter depicts contributions of authors from developed countries in dependent-country journals and the presence of authors from dependent countries in developed-country journals. Based on the data, it is clear that (1) in developed-country journals, authors from developed countries perform much better than do writers from dependent

countries (31:35), just as authors from dependent countries, without exception, perform better than their peers from developed countries in their own journals (5:5). As in the case of coauthorship, where no real cross-cultural collaboration could be demonstrated, cultural interfusion is also lacking when we consider the absence of authors from different cultures. There are only four apparent exceptions, which involve authors from dependent countries in developed-country journals, but all of them can be easily explained by factors other than internationality. The four aberrations are (1) the *Chinese Journal of Communication* (United Kingdom), which, unsurprisingly, publishes mostly articles from Chinese authors; (2) *Communicatio: South African Journal for Communication Theory and Research* (United Kingdom), which publishes mostly African articles; (3) *Journal of Asian Pacific Communication* (Netherlands), with more than 62% Chinese content; and (4) *Global Media Journal* (United States), with almost exclusively Russian and Kazakh articles.

Table 4. Developed-Country and Dependent-Country Authors' Contributions in Developed-Country and Dependent-Country Periodicals in Q1–Q4.

(a) Self-owned periodicals (n = 40)					(b) Not-self-owned periodicals (n = 40)				
	High contribution		Low contribution			High contribution		Low contribution	
Developed-country authors	Q1	10	Q1	0	Developed-country authors	Q1	0	Q1	0
	Q2	10	Q2	0		Q2	0	Q2	0
	Q3	6	Q3	3		Q3	0	Q3	1
	Q4	5	Q4	1		Q4	0	Q4	4
	Total	*31*	*Total*	*4*		*Total*	*0*	*Total*	*5*
Dependent-country authors	Q1	0	Q1	0	Dependent-country authors	Q1	0	Q1	10
	Q2	0	Q2	0		Q2	0	Q2	10
	Q3	1	Q3	0		Q3	3	Q3	6
	Q4	4	Q4	0		Q4	1	Q4	5
	Total	*5*	*Total*	*0*		*Total*	*4*	*Total*	*31*

Discussion

At the outset of this article, I posed four hypotheses about the publishing practices of leading journals in communication and media studies. The first hypothesis states that the location of the publisher will correlate with the national diversity of journal articles. The empirical findings corroborate this assumption by showing that journals that are published in developed countries publish mostly articles from developed-country authors, while journals in dependent countries publish almost exclusively dependent-country content. Moreover, positive correlations are found between the nationality of the publishers and the nationality of the authors. This finding is also corroborated by data on smaller countries. The two Croatian journals in the sample publish almost exclusively Croatian and Eastern European articles. *Medijske Studije* (Croatia) publishes 87% Croatian content; *Medijska istrazivanja* (Croatia) publishes 80% Croatian, 6% Slovenian, and 3% Serbian articles. The same is true, in a smaller measure, for the two German journals: both *Communications* (58%) and *Intercultural Pragmatics* (26%) have Germany as their leading country in the nationality of the authors. *Tijdschrift voor Communicatiewetenschap* (Netherlands) publishes mainly articles from the Netherlands (48%), followed

by Belgian (46%) authors. All three periodicals from Spain—*Profesional de la Informacion*, *Historia y Communicacion Social*, and *Signa*—publish mainly Spanish content (76%, 93%, and 75%, respectively). Brazilian *Informacao e Sociedade* publishes Brazilian content (93%), and Mexican *Communicacion y Sociedad* publishes mainly Mexican content (40%). Finally, the two main publisher countries, the United States and the United Kingdom, publish almost exclusively developed-country content with the exception of thematic or semipredatory journals.

The second hypothesis posits that authors from developed countries will be overrepresented in the most prestigious journals. This assumption is corroborated by the fact that all the periodicals at the Q1 and Q2 levels contained almost exclusively developed-country content. In Q1, all 10 journals have the United States as their leading country, and this number is still 15/20 in Q1–Q2 levels. Authors from dependent countries appear only in levels Q3 and Q4, but almost exclusively in their own journals or in thematic periodicals. Authors from dependent countries in nonspecific developed-country journals are still absent at levels Q3 and Q4.

The third hypothesis proposes that authors from developed countries will frequently cooperate with one another, and their coauthorship with authors from dependent countries will be infrequent. The data reveal a more complex picture of the situation. Cooperation habits tend to correlate with the level of publication more than with the nationality of the authors. Many-authored publications are much more common at levels Q1 and Q2 than in lower-quality journals, where single-authored articles are more common. But since authors at Q1 and Q2 levels are almost exclusively from developed countries, it appears as if they cooperate with one another more than do authors from dependent countries in lower levels. Nevertheless, as discussed in the Results section, intercultural contributions are quite rare at all publication levels: Western European authors cooperate mostly with one another, similar to Northern Americans, who prefer their North American peers for collaboration.

The final hypothesis supposes that authors from dependent countries try to strategically work with authors from developed countries, so collaboration between dependent countries will be infrequent. This hypothesis cannot be affirmed by the results. Dependent countries produce mostly single-authored articles, and much mutual collaboration is seen among dependent-country authors. The coauthorship measure seems to involve the level of publication rather than the location of the authors, but it would be hard to validate this latter conjecture because there are no authors from dependent countries in Q1 and Q2, where the coauthorship level is the highest.

Limitations

The findings presented in this article are representative for the corpus of Scopus-indexed journals in communication and media studies published in 2016. However, other databases exist with quite different contents. Delgado and Repiso (2013) compared different indexing databases, including Scopus, Web of Science, Google Scholar Metrics, Ulrich's International Directory, and Communication and Mass Media Complete. They identified 664 communication journals and found that different databases contain different titles: 433 journals (more than 65% of the full population) were indexed solely in one database.

So while we could conjecture that the strongest patterns of biases would be very similar in the case of journals in other databases, this kind of comparative analysis is still missing.

The interpretation of data showing that developed-country journals publish mainly developed-country content and that dependent-country journals publish mainly dependent-country content could be also questioned, because we do not know how many submissions a given periodical receives. One might say that developed-country journals seldom receive articles from developing countries; hence, they rarely publish dependent-country content. However, this type of data is not accessible, so we can begin only from the data on published papers. It would be extremely important to obtain data on submissions, including those that are desk rejections; unfortunately, none of the indexing databases contain this information.

Another consideration is the correlation between the average number of authors per article and the rank of a journal, by which a higher position correlates with a higher average number of authors per article. Since authors from developed countries tend to collaborate more, in contrast to authors from dependent countries, who produce more single-authored papers, and developed-country journals prefer coauthored papers, one might presume that this could lead to the overrepresentation of developed-country papers. This is an important but difficult question to answer, because the appropriate data do not exist. We do not know whether journal editors "prefer" coauthored papers or whether coauthored papers represent higher-quality research; and, again, we do not have information on rejected submissions. Moreover, one might conjecture that economic factors such as gross domestic product and science productivity factors such as per capita publications also affect the average number of authors per paper. Supposedly, authors from regions with high per capita gross domestic product and per capita publication measures would tend to collaborate more than authors from countries with lower rates. Consequently, economic and science productivity measures might affect not only publication output but average rates of collaboration as well.

Finally, the quantitative nature of this research presents some limitations. It is problematic that we cannot determine the causes of the infrequent collaboration between scholars from developed and dependent countries. Is it a result of a conscious neglect by authors from developed countries toward scholars from dependent countries, or is it a result of a conscious "breakdown from the center," as suggested by Love (1980)? As previously mentioned, data on rejected submissions are not available; thus, qualitative research (focus groups and interviews) must be undertaken to investigate these important issues.

Conclusion

Despite claims that the field of communication and media studies is international, cross-cultural coauthorship is relatively rare, and developed countries rule almost the entire domain. More than 95% of Scopus-indexed journals in CMS are owned by developed countries, and the ownership of a periodical determines the composition of the contained articles: Journals in developed countries typically publish papers from developed-country authors, while periodicals in dependent countries present almost exclusively dependent-country content. The same phenomenon occurs at the level of individual countries:

Spanish, German, Mexican, and Brazilian journals publish almost exclusively papers from their countries, and the United States and the United Kingdom publish almost exclusively content from developed countries.

At the Q1 level, all 10 journals have the United States as their leading country, and this number is still 15/20 in the Q1–Q2 quartiles. Dependent countries appear only in levels Q3 and Q4, but exclusively in their own journals or thematic periodicals. Authors from dependent countries in developed-country journals are still absent at levels Q3 and Q4. Among all authors (Q1–Q4), 37.4% are North American, and 31.65% are Western European; all other regions of the world are under 8% in their contribution (Asia: 7. 89%; South America: 7%; Russia: 6.58%; Oceania: 2.63%; Africa: 2.55%; Eastern Europe: 2.3%; Middle East: 1.52%).

In Q1, irrespective of their place of publication or research focus, all journals publish mainly North American content with very low internationality and center-periphery indexes. The internationality index starts to increase in Q2, but periodicals in this quartile still publish almost exclusively articles from developed-country authors. Only in Q3 does the center-periphery index emerge, surely because of dependent-country-based journals. In Q4, both the internationality and center-periphery indexes improve further.

In developed-country journals, authors from developed countries publish many more papers than do writers from dependent countries. Authors from dependent countries, without exception, publish more articles than their colleagues from developed countries in their own, dependent-country journals. Similar to the case of coauthorship, where no real cross-cultural collaboration could be seen, cultural interfusion is also lacking when we consider the absence of authors from different parts of the world.

To overcome the "publish or perish" situation, authors from dependent countries tend to develop alternative publication methods. First, they might try to publish in prestigious but thematic journals, such as *Chinese Journal of Communication* or *Communicatio: South African Journal for Communication Theory and Research*. These journals that originate in developed countries or that are thematically dependent country journals exist only in levels Q3 and Q4, but they maintain the center-periphery structure and hierarchy by determining the themes and topics in which a dependent-country author could publish. A second option is to establish dependent-country journals, such as *Medijske Studije* or *Media Watch*, in which authors from dependent countries are overrepresented. Nevertheless, these Q3- and Q4-ranked journals are not real alternatives for the prestigious developed-country periodicals, and because they lack authors from developed countries, they cannot raise the possibility for international, cross-cultural dialogue. The third possibility occurs when a developed-country journal has a guest editor from a dependent country. This increases the number of articles from dependent-country authors immediately, but these occasions are infrequent. As Lauf (2005) notes, the national background of the editorial board is of great importance to the publication output of a given journal. The fourth opportunity could be what Spanish-language countries do so well: They create great hubs in which linguistically close cultures can collaborate. No fewer than 19 journals in the whole corpus originate in Spanish- or Portuguese-speaking countries. Five Spanish journals are in Q2, so this hub obviously has advanced to the most prestigious periodicals. It seems as though these journals could accomplish what Prebisch (1959) described as

breaking away from the old, dominant center. Finally, there are criticizable attempts to publish in developed-country journals for money, as seen in the example of *Global Media Journal*.

The center-periphery opposition that dependency theory suggests applies to the publication patterns in communication and media studies. Two sets of states exist: one is the well-developed, industrial countries of North America and Western Europe, and the other is the dependent regions of Latin America, Asia, Africa, and Eastern Europe with low gross domestic product. Whereas the former set of countries governs the vast majority of both publishers and publications, the latter is almost invisible—without their alternative ways of publication, the contributions of dependent countries would be fewer than one per thousand. Consequently, the findings of the research reported in this article support dependency theory. Although most high-quality journals are located in developed countries—mainly the United States and the United Kingdom—they feature few authors from dependent countries. Lower-ranked journals, on the other hand, are typically located in developing countries and feature more authors from dependent countries. This phenomenon is likely disadvantageous to the field of communication and media studies, because inequalities and biases in the publication system create not only a barrier for authors from dependent countries but obstacles to science itself—making it difficult for new and nonmainstream approaches to take part in the development of research in the field.

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