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Geographies and Cultures of International Student Experiences in Higher Education: Shared Perspectives Between Students from Different Countries

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ABSTRACT

Updated research is required on the geographies of the cultural issues that shape international students' experiences. The growing number of students traveling to different countries implies a need to cater to cultures and values from different parts of the world. Apart from cultural and geographical aspects, there is scarce knowledge about similarities between students' experiences abroad that takes into account their countries of origin (and, to some extent, their cultures) within those mobility flows. Using a probabilistic topic model on 59,662 international student reports from 167 countries on their mobility experiences, we examine links between the students' experiences and their countries of origin. The results show that the geographical features of the reports are connected not only to cultural issues, but also to other factors that might affect their international experience.

Keywords: educational population, human geography, international student mobility, mobility experiences, probabilistic topic model, students' cultural approaches

INTRODUCTION

Students, scholars, and staff traveling to other countries inevitably implies experiencing cultures and values from different parts of the world. Student mobility is a key issue for the internationalization of universities. Students, whether seeking credits or degrees, have become increasingly more globally mobile during the last few decades (Perez-Encinas, 2017). In fact, in the 21st century a truly global market for students and academic staff exists (Altbach, Reisberg, & Rumbley, 2009).

In global terms, the number of students enrolled in tertiary education outside their countries of citizenship increased to nearly 5 million in 2015 (Organization for Economic Cooperation and Development, 2017) and the number is increasing yearly. Taking into account global mobility numbers and the previous statement, we can state that student mobility flow occupies an important position in the field of the internationalization of higher education, not only in Europe but around the world. The mobility of students and their interactions in different cultural settings impacts the international students' experience.

Our analysis sheds light on the geographies and the cultural issues that shape international students' experiences. Scholars from diverse perspectives (Findlay et al., 2012; Jöns & Hoyler, 2013; King & Raghuram, 2013; Perez-Encinas, 2017; Raghuram, 2012; Rodríguez González et al., 2011; Verbik & Lasanowski, 2007; Zhou et al., 2008) have dealt with the cultural aspects (such as culture shock derived from mobility flows, the language dimension, the sociocultural determinants of students' learning and experience, and intercultural adaptation), and also geographical aspects (the application of migration theories and gravity models to this field, the motivations for and meanings of international student mobility linked to different cultures of mobility in several countries), but there is scarce knowledge about similarities between students' experiences abroad in relation to their countries of origin (and, to some extent, their cultures) within those mobility flows.

Applying an innovative methodology (probabilistic topic model) to a set of 59,662 reports written by international students from 167 countries on their mobility experiences dated from 2011 to 2014, we explored the links between the main themes underlying those experiences and the students' countries of origin. The data come from the STeXX database (for further details about STeXX see www.stexx.eu) from the company StudyPortals, which gathers

the opinions of students from multiple countries. StudyPortal is fully responsible for all the copyright issues relating to the STeXX terms of use, and the authors signed an agreement with them for academic research purposes.

We found four primary groupings in which the salient themes in students' experiences and their countries of origin coalesced. The first (comprising 29.8% of nodes of the whole network of reports) was constituted by reports written by students from Italy, Austria, Sweden, and Norway. The salient features of their experiences were language skills, solid teaching, friendly people, and amazing culture (one that is attractive for young people). The second grouping was students' reviews from France, Belgium, the Czech Republic, the United Kingdom, Slovenia, Bulgaria, Estonia, and China (27.3% of nodes). The main themes for this group were city offerings, looking for a university, what a good university is, and enjoying life. The third one comprises students' reviews from Spain, Germany, Poland, Hungary, and Romania (26.3% of the nodes). Those reviews contained the following main themes: living expenses, academic level, experience abroad, and convenient accommodation. The last one consists of students from Turkey, Greece, and Cyprus (6.6% of the nodes), for whom the main theme was how expensive the destination country was.

The main themes underlying the students' experiences in their foreign destination facilitate further analysis of the geographies of international higher education student mobility in relation to the students' cultural approaches and, in particular, why students from each country within each grouping emphasize certain issues. The students' cultural approaches (mindsets rooted within their original cultures) affect their narrations about their experiences abroad.

LITERATURE REVIEW

The growing number of researchers studying the geographies and cultures of international student experiences in higher education have used a variety of approaches to deal with the issues involved (King, Findlay, & Ahrens, 2010).

General accounts of international student migration (ISM) are focused on five main issues: theoretical, spatial (directions and patterns of student flows), motivational and experiential, institutional, and consequential (aggregated and individual effects of mobility; Riaño & Piguet, 2016). Riaño & Piguet (2016) suggested more research on international student mobility, both

because of its growth and due to the failure of the traditional perspective of human capital theory in the explanation of this phenomenon. Consequently, new research challenges on ISM have attracted scholars from fields such as geography, sociology, higher education studies, migration studies, and international law. Recent theoretical developments include the institutional dimension of ISM such as government and university's policies on the issue (Verbik & Lasanowski, 2007). These developments can be classified within four trends (Riaño & Piguet, 2016): supply and demand-side theories (Findlay, 2010); class reproduction (Findlay, 2010; Findlay, King, Smith, Geddes, & Skeldon, 2012); global knowledge theory (King & Raghuram, 2013; Madge, Raghuram, & Noxolo, 2014; Raghuram, 2012); and the new migratory elite theory (Murphy-Lejeune, 2002).

Supply and demand-side theories try to explain student mobility from the perspective of the motivations of the students and their families. Among those motivations is the aspiration to attain higher income in the future through high quality jobs. This idea goes hand in hand with rationale related to human capital theory, based on rational choice about the cost–benefit balance of migration (that theory deals with the investment needed to obtain a university degree as well as the monetary gains that the individual shall obtain from the job allowed by that degree. Considering that the investment should be higher when people goes abroad for higher education, migration costs are also in the equation), in some cases including academic quality elements within the traditional gravity model (that considers economic interactions across space in factor movements) (Almeida, Gonçalves, 2001). Other authors in this trend have emphasized some geographical aspects, such as city attractiveness (Sá, Florax, & Rietveld, 2004). An extension of these rational choice models is the social choice approach, which involves the addition of a sociocultural dimension in developing a new economy of migration. In terms of the social choice approach, the migration decision corresponds not to the student, but to her/his family. In this instance, the student's migration is part of a strategy devised to assure the family's long-term economic success (Wolf, Freedman, & Soldo, 1997).

We explore the similarities between various experiences abroad of students from different countries, so it could be useful to review first the relevant geographical approximations, and then the cultural ones. For Findlay et al. (2012), international student mobility is the result of an interplay of cultural, political, societal, and economic forces, in which a student's social status conditions mobility. Students' decisions regarding their enrollment in

a foreign university are only a part of the life process from secondary education to a globalized labor market. Findlay et al. considered that any ISM theory should take into account variables such as class reproduction of distinction. A desire for distinction in the career of the student leads him or her to take advantage of the reputation of the educational destination selected. If reputations do not have a homogeneous distribution in the global higher education system, then different geographies of ISM arise and we can find different geographies (or approaches from the diverse branches of the geographical science) of ISM. Actually, various economic and academic agents are boosting the presence of global university rankings within the general public and decision makers to improve some universities' reputations and, consequently, their legitimation (Rodriguez-Pomeda & Casani, 2016). Additionally, global university rankings shift the geopolitics and geo-economics of higher education from a national-based focus to a global-based one, and, in parallel, towards some places (mainly in the Asia Pacific region) and scientific fields (Jöns & Hoyler, 2013). Global knowledge theory is a consideration of the role played by mobility students in the new knowledge economy. Lastly, those students could be the new elite within the global migratory flows. This not only implies the consideration of a new migrant group, but also necessitates the adaptation of traditional theories based on the spatialities of migration to take into account the spatialities of knowledge (Raghuram, 2012). Understanding the latter requires analyzing the role of knowledge institutions, which defend their legitimacy in the global knowledge economy by acting as knowledge brokers among people in different countries. Some authors have also documented a significant network effect in the student migration decisión—that is, if there is a relevant group of country nationals at destination, students are prone to go there (Beine, Noël, & Ragot, 2012). After that decision, a satisfactory learning experience depends on the relationships and friendships obtained in the foreign country (Montgomery & McDowell, 2009). The geographical analysis of present ISM shows an increasing tension between important nodes (Europe, the United States, Asia-Pacific) of the knowledge-based economy (Jöns & Hoyler, 2013).

Recent developments have bridged those approaches in an endeavor to achieve a deeper understanding of ISM. Perkins and Neumayer (2014) considered traditional cost and benefit analysis in the ISM decision, as well as new developments in geography. They found that the reputation of the destination university had relatively low relevance. The income level of the

destination country was far more influential (as well as other factors, such as relational ties derived from the colonial past, such as India and the UK, the existence of a common language, and previous migration flows). They also offered two further conclusions that are relevant to our research: that important differences separate the ISM flows from developed and developing countries, and that there are differing sub-groupings of developing countries. Consequently, they advocate for the abandonment of simplistic classifications of countries derived from ISM flows, and more nuanced country categorizations. We attempt with this research to offer new knowledge that might be useful in terms of differentiating among countries involved in ISM. Our data (reports from 167 countries) and methodology (aimed at finding latent structures within all the reports, and to distinguish between groups of reports independently of the students' countries of origin) are proper to this research goal. To attain it required also considering the cultural aspects of ISM, such as culture shock due to mobility flows, the language dimension, the sociocultural determinants of student's learning and experience, and the intercultural adaptation.

Apart from the geographic, economic, and institutional analysis of ISM, the cultural aspects and international student experience have gained importance. Indeed, culture and education researchers have dealt with ISM by providing a variety of perspectives, as previously seen. In the complex intercultural adaptation of international students, the traditional model (based on psychological adjustment—that is, students look for their well-being or satisfaction through their adaptation process) should be complemented by variables related to foreign language mastery, social interactions, personal development, and academic outcomes (Gu, Schweisfurth, & Day, 2010). Therefore, a set of factors (social and organizational cultures, psychological aspects, competencies mastered, pedagogical issues, availability of adequate support for the foreign student, etc.) conditions the intercultural student's adaptation. Furthermore, other authors have added new perspectives on social identification or culture learning to the conventional analysis of the culture shock suffered by mobility students. These perspectives dovetail into the so-called Affective, Behavioral, and Cognitive (ABC) theory of shock and adaptation (Zhou, Jindal-Snape, Topping, & Todman, 2008). In sum, a wider framework based on the synergies among all these cultural dimensions facilitates a deep understanding of the cultural adaptation process.

According to Ward (2001), the amount of cross-national interaction is generally low. However, international students expect and desire greater

contact, and interaction with domestic peers is generally associated with psychological, social, and academic benefits for the international student. Indeed, international students might not always have the opportunity to interact and integrate as they wish, and they might not be aware of integration opportunities and benefits. In the case of domestic students, they are unaware of what the benefits of interaction with international students will be (Perez-Encinas, 2015). Leask (2009) suggested that international educators "move away from deficit models of engagement, which position international students as interculturally deficient and home students as interculturally efficient, because both groups of students—domestic and international—need support" (p. 218).

In sum, several authors have dealt with issues related to geographies and cultures of international students and provide a variety of perspectives on the topic, but few have tackled the topic with a comparative approach to student experiences that takes into account their countries of origin and their cultures. Some recommendations to provide the best student experience are divided into four key areas (American Council on Education, 2015)—welcoming international students, adjusting services and programs to meet their needs, facilitating integration between international and other students, and assessing students' experiences.

RESEARCH METHOD

Our research was an attempt to determine whether there were any common themes in the stories of students from different countries about their abroad experience. Our research design was based directly on the analysis of their reports. Students' texts reflect their opinions about their daily academic activities (Bauer, Süerdem, & Bicquelet, 2014). Treating all the students' texts as a unique corpus meant we had to deal with an enormous number of words. Detailed information about the database that was used can be found at www.stexx.eu (the database has 179,383 student reviews about their abroad experience). In order to deal with such a large volume of texts (hundreds of thousands of words), we needed a method capable of unveiling the latent structures (if they existed) in those reports. A probabilistic topic model (PTM) was an adequate tool to attain that goal. In terms of PTMs, a text could be considered for analysis as the result of picking certain words within a set comprised of the words that define a theme. Using Bayesian statistical algorithms, one can find the "hidden thematic structure in a large collection

of texts" (Blei, 2012, p. 1). PTMs are unsupervised, explicit, inductive, and also take into account how words' meanings can change according to the contexts in which they are utilized. Topic models make it possible to find patterns within a set of texts. So, "it is an attempt to inject semantic meaning into vocabulary" (Graham, Weingart, & Milligan, 2017) without reading every text considered, thanks to a computer program that extracts the main components (topics) of a text through the gathering of those words found in the text that are related to each topic. The computer program statistically "decomposes a text into the probable baskets from whence the words first came" (Graham et al., 2017, p. 1). Therefore, the researcher does not annotate the texts (as one must do with general purpose qualitative tools), so the work can be replicated by other researchers, and one does not impose any premises on the latent structure of the texts (DiMaggio, Nag, & Blei, 2013). The knowledge of that hidden structure can shed light on the cultural frames of the students' mindsets.

Within the set of PTM (developed by computer scientists and statisticians), the simplest is the so-called Latent Dirichlet Allocation (LDA; Blei, 2012). This model is based on the Bayesian probability that starts with the idea that any text can be understood as a probability distribution over certain bags of words (called *topics*). The aim of LDA is to uncover the prior distribution of words, taking into account that the analyzed text (or set of texts, also called a *corpus*) results from a two-stage process: In the first one, the ideal author of the text would pick a topic related to her field (for instance, within higher education, it could be a topic on professors with words such as teacher, learning, tenure, lecture, or pedagogy), and then a specific word within the previously selected topic (in our example, lecture, once the topic professor has been selected; Steyvers & Griffiths, 2007). The author's discourse is constructed by aligning a set of words selected in that way.

To build an LDA model in our corpus, we determined what the words were that delimited their discourse on their abroad experience. We used an open source software program called MALLET 2.0.7 (*MAchine Learning for LanguagE Toolkit*, McCallum, 2002). MALLET uses computer routines for "transforming text documents into numerical representations that can be processed efficiently" (McCallum, 2002). The researcher must provide a parameter with the number of topics for the desired model. When the corpus dimension is similar to the chosen one, several authors suggest a small number (between 10 and 20) of topics (Blei & Laferty, 2009; Griffiths & Steyvers, 2004; Rodriguez-Pomeda & Casani, 2016; Steyvers & Griffiths,

2007). Therefore, we selected 19 topics. Then MALLET automatically generates the topics with the higher probabilities to appear in the considered texts. After that, researchers must issue a descriptive label for each topic. This stage in the construction of the LDA model derives from the researchers' appreciation of the sense and semantic coherence of the words within the topic. Their appreciation comes from their previous experience and knowledge of the question researched (Andrzejewski, Zhu, & Craven, 2009; Chang, Boyd-Graber, Wang, Gerrish, & Blei, 2009; Perez-Encinas & Rodriguez-Pomeda, 2018). LDA model coherence requires the solution of the problems posed by topic characterization, topic naming, and topic contextualization (Ramage, Rosen, Chuang, Manning, & McFarland, 2009). LDA involves intrinsically different solutions for each running of the proposed model, because it relies on stochastics elements in the initial characterization of the model—when the researcher defines the number of topics that will shape the model. As a consequence, the model "can potentially lead to different results being generated on the same corpus when using the same parameter values. This corresponds to the concept of "instability," which has previously been studied in the context of *k*-means clustering. In many applications of topic modeling this problem of instability is not considered and topic models are treated as being definitive, even though the results may change considerably if the initialization is altered (Belford et al., 2017, p. 1). So, as we have said, the solution came from the researchers' mastering of the field and assimilation of the knowledge accumulated in the scientific literature.

Each of the topics obtained comes from one latent dimension of the corpus' structure. The characterization of the topic came from the words selected by the LDA algorithm after the computation of the probabilities associated with the presence of a specific word in a text. Then, researchers give a name to the topic in an "ad-hoc process done by the practitioner after inspecting the topic's most common words" (Ramage et al., 2009, p. 2). Dealing with topic contextualization requires that the researchers analyze the different usages of the topic within different sets of texts within the corpus.

Now we can explain how our LDA model was applied to the considered dataset of international student' reports offered by StudyPortals BV. Studyportals offers an open form to collect student reviews from all over the world (see http://www.stexx.eu/write-review/). This enterprise maintains, among other databases, reports made by international students on their experiences. This database (called STeXX, www.stexx.eu) contains students'

reports from 2011. The database for this research comprised 73,715 reports written by students from 167 countries. We eliminated text in languages other than English, text related to national mobility, and some common words (articles, conjunctions, etc.) that did not add relevant content to the report. Irrelevant data comprised the so-called stop words (i.e., articles, prepositions, etc). As a result, we analyzed 59,662 reports with MALLET in order to build a probabilistic topic model based on the LDA algorithm. MALLET offers an output comprised of the set of words most closely related within each topic, and the relative contribution of each topic to each student report. Those relative contributions represent the strength of the link between the report and its integrating topic (Graham & Blades, 2012). Then, we simplified the network of reports and topics by focusing—for each report—on the strongest link between it and a topic. By computing only the strongest links for the network of outgoing students' reports, we obtained the main topics that build each report—that is, the topics with the higher probabilities in the composition of each discouse as it is offered by the LDA model. The selected topics represent the largest part of the aggregated probability of generating each discourse. The probabilistic topic method used (LDA) facilitates a reduction of the huge volume of information managed. The aim of that reduction is to highlight the main connections between reports and topics. If we consider, additionally, that all the reports made by the students of a country represent its aggregate account of the mobility's keys, then we can establish the links between reports, topics, and countries. In sum, LDA synthetizes data, and shows relevant latent structures within those data. In our case, we could obtain, first, the topics that were highlighted in the 59,662 reports and, secondly, the communities that assembled the topics and the countries of origin of the reports.

RESULTS

We obtained an LDA with 19 topics capable of generating the whole set of student reports. As we can see in Table 1, each topic received from the authors a label that encapsulated its content. Those labels resulted from considering the relevant literature about international student mobility, as well as words that defined the topic. Those words (and their relative presence in the texts) were an output of MALLET modeling. Step-by-step characterization of the technicalities involved can be found in Jockers (2014), Arnold and Tilton (2015), and Graham et al. (2017). The topics included in Table 1 describe by

the words picked up by MALLET (third column of Table 1) due to their high connections with each theme within the whole set of student reviews.

Table 1: The LDA Model with 19 Topics: Main Defining Words

Topic	Topic's label	Words within the topic
0	Buddy services	Students, Erasmus Student Network, people, Erasmus, activities, local, events, friends, trips
1	Living expenses	Euros, expensive, food, room, rent, living, cheap
2	Language skills	Language, English, learn, speak, Spanish, German, French, Italian
3	Academic level	High, university, level, good, education, quality
4	City offerings	City, people, big, great, recommend, nice, cultural, town
5	Abroad experience	Experience, life, abroad, learn, lot, culture
6	Looking for a university	University, wanted, study, choosing, choice, reason, choose
7	What a good university is	Good, university, friendly, teachers, professors, atmosphere, life
8	Enjoying life	Time, enjoy, life, stay, experience, friends, advice, fun, travel
9	Expensive country	Expensive, money, country, living, costs, prices
10	Convenient accommodation	Find, accommodation, place, room, flat, good, house, residence, apartment
11	Some things are expensive, other ones are cheap	Expensive, cheap, food, buy, transport, beer, bus, eat
12	Weather	Winter, cold, weather, warm, clothes, summer, snow, spring

13	Future benefits derived from studying abroad	Strong, international, study, research, world, work, future, experience, education
14	Solid teaching	Courses, teaching, methods, good, teachers, classes, professors, exams
15	Interesting courses	Courses, good, study, interesting, subjects, level, studies, faculty
16	Traveling abroad	City, travel, countries, beautiful, visit, history
17	Academic burdens	Time, work, hard, semester, problems, study
18	Friendly people, amazing culture	People, nice, amazing, culture, life, place, recommend, friendly, Spain

The topic's words configure the prominent themes of the student reports. Moreover, it was possible to analyze the students' main concerns about their abroad experience. The main aim of our research was to identify those themes in relationship with the country of origin of the student. Furthermore, this result offers a base for further analysis—departing from traditional studies of the cultural characteristics of students considering their geographical origins, because this method can highlight all the links between the discourses in the database of students from all over the world. Previous researchers have focused on specific relationships between relatively small sets of countries from which students come.

Our model enables one to differentiate between communities (or groupings of topics and the countries of origin of the students who have written those reports that are more strongly related to each topic). This partition of the network of 19 topics and 59,662 reports (that is, 59,681 nodes) resulted in four large groupings, as we can see in Table 2. The weighted degree represents the number of edges that link a node with other nodes within the network (Bekoulis & Rousseau, 2016).

Table 2: Higher Topic Weighted Degree in Each Community

Community	Main topics in this community	Topic weighted degree
1	14	3431.7
	2	1863.67
	18	1547.03
2	7	4370.42
	4	2841.75
	8	2411.8
	6	484.6
3	1	3820.72
	5	2841.18
	3	1565.03
	10	1333.38
4	9	3030.25

Note: The total number of communities appearing in this network is 24. The network modularity is 0.027. Community 1 has a 29.8% of nodes in the whole network connected to it. Community 2 has a 27.27% of nodes in the whole network connected to it. Community 3 has a 26.2% of nodes in the whole network connected to it. Community 4 has a 6.57% of nodes in the whole network connected to it. These four communities assemble 89.9% of nodes in the whole network connected to them. The remaining 20 communities has a percentage of connected nodes below 0.52% each one.

Table 3: Main Communities: Countries and its Weighted Degree

Country	Community	Weighted degree
Italy	1	3539.89
Austria	1	1337.93
Sweden	1	516.4
Norway	1	124.59
France	2	1786.77
Belgium	2	1112.95
Czech Republic	2	1109.63
UK	2	1042.62
Slovenia	2	694.18

Bulgaria	2	622.1
Estonia	2	469.21
China	2	263.78
Spain	3	3942.81
Germany	3	3150.85
Poland	3	2390.25
Hungary	3	719.98
Romania	3	710.58
Turkey	4	1413.44
Greece	4	665.81
Cyprus	4	132.46

Considering that a basic assumption of any probabilistic topic model is that *all* the text comprised within the analyzed corpus is the result of a probability distribution over the *whole* set of words (or *topics*), we have obtained different communities (that is, the couples "topics-countries of origin of students") by the means of picking up only in each community or group the topics that show the higher probabilities. In other words, we can find that all the topics are represented in each group, but we have discarded the topics that attain the lower probabilities in the generation of each group. The largest grouping comprises 29.8% of the total number of nodes in the network, and the main portion of the reports offered by students from Italy, Austria, Sweden, and Norway (as well as a relatively smaller proportion of reports from students from other countries). This Group 1 is structured around the topics (by order of relative importance) as follows: 14 (solid teaching), 2 (language skills), and 18 (friendly people and amazing culture). Group 2 unites mainly student reports from France, Belgium, the Czech Republic, the United Kingdom, Slovenia, Bulgaria, Estonia, and China. It comprises 27.3% of the total number of nodes in the whole network. This grouping was built upon the topics (by order of relative importance): 7 (what a good university is), 4 (city offerings), 8 (enjoying life), and 6 (looking for a university). Group 3 consists mainly of reports by students from Spain, Germany, Poland, Hungary, and Romania. It represents 26.3% of the nodes of the network. This grouping was created on the topics (by order of relative importance): 1 (living expenses), 5 (abroad experience), 3 (academic level), and 10 (convenient accommodation). Group 4 comprises mainly reports written by students from Turkey, Greece, and Cyprus. It brings together only the 6.6% of the total

number of nodes of the whole network. This grouping arises almost exclusively from Topic 9 (expensive country).

From our results, it is clear that the geographical features of the reports are connected not only to cultural issues, but also to other ones.

CONCLUSIONS

In our research, we have shown the existing relationships among the dominant themes subjacent to the 59,662 reports written by mobility students from 167 countries. These relationships connect reports authored by students with different cultural frames and from differing geographical locations. Furthermore, it is now possible to investigate the links among the mind frames of students' from differing cultural backgrounds.

Our analysis shows links between the visions of students from different countries (but within the same geographical region). Thus, this result offers a basis on which to conduct deeper explorations of the students' discourse, taking into account each cultural background. This study shows links between students from countries with a long history of international student mobility (for instance, the European Union countries participating in the ERASMUS and ERASMUS+ programs; Rodríguez González, Bustillo Mesanza, & Mariel, 2011) and others from the somewhat recent student mobility tradition (such as China). This time lag also conditions the volume of students participating today in the mobility flows (relatively modest in China's case, but with high growth in recent years, from 23,749 outbound students in 1999 to 284,700 in 2010 (Yue, 2013). Other socioeconomic factors affect international mobility as well (funding available for students, demographics, economic-cycle situation of each country, etc.) and determine which social classes mainly nurture the ranks of students enrolled in tertiary education (and, as a consequence, the international student mobility flows).

We found four sets of countries whose outbound students were connected in their vision about their experience. However, these groupings were not completely homogeneous in terms of the geographical, cultural, and economic features of the students. Thus, there is room for further research based on this exploratory result of our investigation. A promising idea is to analyze the evolution of those connections between students of different countries and the dominating themes in their mind frame (as it appears from the analysis of the words in each topic). For instance, the proximities between the reports from Chinese students and those written by students from some

European countries could be explained by the economic similarities between them. Chinese students belong to economic elite, so their status should be similar to the corresponding middle-upper classes in some European societies.

This feature of our research also poses another question about the homogeneity of each community. Grouping 4, *a priori*, shows high homogeneity (reports from Turkey, Greece and Cyprus, which are geographically close, and with some cultural connections), but the other three communities are more heterogeneous.

Lastly, another possible starting point for further research about ISM would be the geographical and cultural transformations provoked by the diffusion of global university rankings. In its present configuration, major rankings push ISM towards some places and knowledge areas.

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