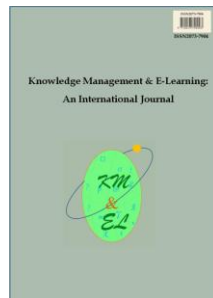

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Measuring influence of internationalized universities on smart city development in terms of human capital and urban aspects

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Abstract: Modern urban performance depends not only on the city's endorsement of hard infrastructure (physical capital), but also on the availability and quality of knowledge communication and social infrastructure (intellectual capital and social capital). This is one of the clear reasons why the concept of Smart Cities recently attracted a great amount of attention, both from academia and city planners. One of the challenges of the Smart City concept is how to raise human capital among people, such as making them culturally sensitive, mobile and to improve other social characteristics. This challenge is especially valid for industrial cities that are facing economic turbulence and a demand for revitalizing their public spaces and economic specialties. The aim of this study is to examine the correlation between the amount of international students in Russian universities with the positive changes that occur in a Russian student's human capital, and their neighbourhood areas, especially in public spaces. We aim to support the hypothesis that a network of "internationalized" universities serves as a revitalization measure for a city, facilitating the development of its surrounding areas, and reducing political and social risks within a society. Research methods for gathering data are: deductive trend search, which uses a literature review from leading academic journals and the empirical study based on the created questionnaire. This questionnaire forms a dataset which consists of a number of master courses held in English from one of the leading Russian universities based in Moscow. In this paper, we explain the research design and the results of a long-term project which we expect to complete in Russia in 2016.

Keywords: Smart city; Knowledge economics; Internationalization; Higher education; Urban development

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1. Introduction

According to Giffinger et al. (2007) Smart Cities can be identified (and ranked) by six main categories, which are based on theories of regional competitiveness, transport and ICT economics, natural resources, human and social capital, quality of life, and participation of citizens in city governance. In particular, Shapiro (2006) analysed the connection between human capital and several direct measures of people's quality of life. He discovered that, from 1940 to 1990, there was a 10% increase in a metropolitan area's concentration of college-educated residents, which was associated with a 0.8% increase in the subsequent employment growth. Heyneman (2001) and Berry and Glaeser (2005) also noted the impact of Higher Education Institutions (HEI) on a higher proportion of an educated labour force and social unity in a city.

From these considerations we decided to discover the role of modern HEI in the Smart City concept development in terms of human and social capital of people. Increased number of international business today implies that intercultural sensitivity and other "soft" skills of employees play much bigger role than before. Altbach (2003) noticed that HEI reacted on the world globalization process with "internationalization" of HE: integration of research, use of English as the lingua franca for scientific communication, and growing international labour market for scholars and scientists. By "internationalizing" student's groups, modern universities create diverse social networks and social forums around them and facilitate the integration of students into the globalized world. Cultural diversity on university campuses creates ideal social forums for inter-cultural learning and non-formal education (Volet & Ang, 1998).

We argue that these social forums enhance local communities, produce environmental changes on the "internationalized" campuses and foster the socio-economic development of the Smart City.

This paper contributes to longitudinal studies on this topic, and reports the results from the first part of the research model (Table 1). The first section outlines the main components of this research: motivation for this study, the methodology, and the research design. The second section is devoted to the question of how universities are currently internationalized, and their impact on the human capital and the neighbourhood. The third section shows the first results from the survey which first part was accomplished in Russia in 2014.

2. Motivation

The Russian Federation now faces a very turbulent period in its 1000 year history. The post-soviet era began in 1991, with the political and economic transition from the former soviet system which heavily affected most cities. In the USSR, the 1930s and later in the

1950s the urbanization of industry began. This meant that a large amount of people were forced to abandon farming, and later settled in pre-determined places to work in production, according to the soviet government's self-contained planned economy. In the first years of the 1990s, market conditions revealed extra costs, which made production in a number of geographical locations and climate zones uncompetitive in comparison to substitute goods from foreign countries. An example of this can be found in the automotive sector. Due to the competition by western goods, a number of cities faced the shutting down of their "city-forming" factories. These factories were established especially to produce certain goods or raw materials and employed 30-60% of the local population for this purpose. Therefore, their closure meant that the local population's living standards drastically decreased in a number of post-soviet cities.

We believe that there is a chance for post-soviet cities to revitalize the economy and its public spaces by enhancing local universities. However, there is a great delay in collaborating with international scientists, students and researchers for research and educational opportunities. There are several reasons for this, including: an inability to deliver educational content or scientific research in English; a lack of student dormitories and the legal and bureaucratic formalities of accepting international students or employees. International students of various ethnic backgrounds often face not only the obvious language barriers, but also cultural barriers between them and the local population. Moreover, the social environment of the city can often be unfriendly towards foreign cultures.

However a number of cities in Russia are moving towards the concept of the Smart City, where education, technology and infrastructure are the main approaches. A scientific center in the form of a technology park was established in Skolkovo (Moscow region). The document signed recently by the president of the Republic of Tatarstan (one of the leading republics of the Russian Federation in the Volga Federal District), and the Cisco Vice President (http://newsroom.cisco.com/release/121115/Cisco-to-Develop-ICT-Master-Plan-for-Kazan-Smart-City-Project?utm_medium=rss) envisaged the development of an ICT master plan for the innovative Kazan Smart City (<http://kazansmartcity.com/>). The main purpose of the initiative is to build a smart, socially attractive modern city that will stimulate the economic development of the entire region. Twenty-nine National Research Universities (NRU) are established along Russia to provide cutting-edge research opportunities and prepare skilled labour force.

We found our motivation to observe changes in Russian students' human and social capital, which study on the same Master's course as international students and the similar changes in Russians who are in contact with international students: i.e. studying at the same Higher Education institutions or living in the same student dormitory. We expect to observe the urban changes that occur next to university campuses, technology parks and locations where international labour and knowledge is remarkably employed.

These influences are weakly (or almost not) investigated in the scientific literature¹ that is why the study of this issue seems to be very important when considering internationalization of universities in Russian cities, especially in terms of a smart urban eco-system.

¹http://andrewbutcher.org/wp-content/uploads/North_Shore_study.pdf

3. Research design and methodology

When international scholars and students come to Russia they start contacting the local people – from their colleagues in labs or student groups to dormitory neighbours and friends at local bars, which starts their social networks.

Since in Russian universities there are few examples of delivering educational content in English, during the first part of our study we concentrated on Higher School of Economics (HSE). Participation in the program to have 5 Russian universities in the top 100 in the world rankings by 2020 puts additional requirements on the strategy and reinforced its internationalization. We investigate two hypothesis of the HSE' internationalization:

- Does the internationalization of HSE improve Russian student's human capital in their social network?
- How does internationalization of HSE change the University Campus and its environs?

We believe that there are three circles of social network that students of Master courses have as shown in Fig.1. The first circle consists of the student group, the second friends of classmates and other contacts outside the group (mostly Russian-speaking students from the university). The third circle constitutes from contacts from the city, mostly often acquaintances with local citizens in social places (i.e., cafés, etc.) (Furham & Bochner, 1982).

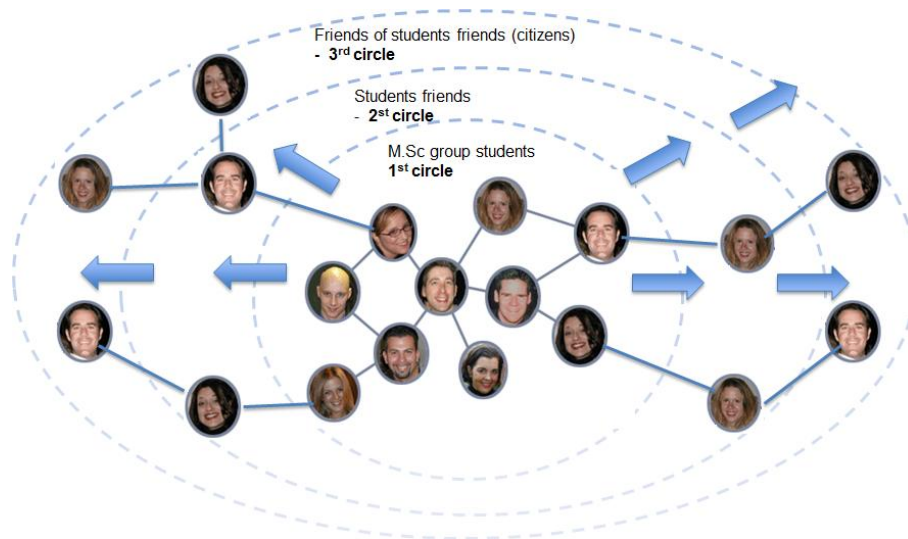
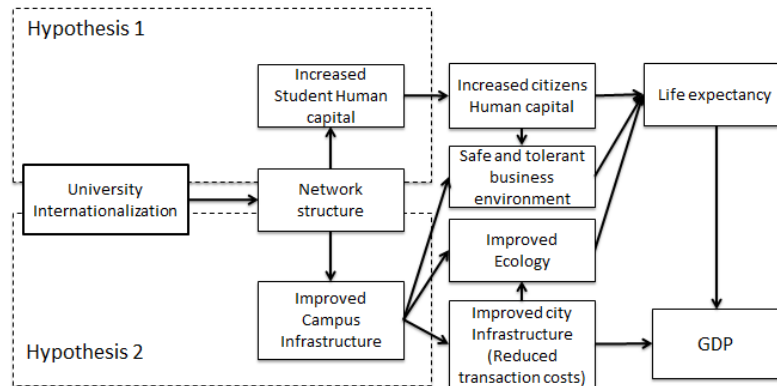


Fig. 1. Abstract view on student's social network: layers influenced by international students

We argue that the network structure enhances the student's human capital and changes the campus and the territories around (Hypothesis 1). The implied changes are: an increased human capital (from the social network), a safe and tolerant business environment, an improved city infrastructure and ecological standards (Hypothesis 2). These two hypotheses drive the life expectancy of Smart City citizens and contribute to the local GDP. The model presented in Fig.2 will be tested on the collected empirical dataset represented by the survey answers.

**Fig. 2.** General framework of the analysis

In June 2014 after the International Summer School "Social Network Analysis" which was held in St. Petersburg, August 8-13, 2014 a group of researchers of the Higher School of Economics planned a three years longitudinal study. The research steps, expected results and timeframes are shown in Table 1.

Table 1
Main methodological milestones

Research part	Research steps	Expected results	Start
Part 1.	Definition of research design and methodology	Current state of student social networks	June 2014- Dec 2014
	Literature review of internationalization in Higher Education		
	Creation of a questionnaire about the influence on social aspects		
	Selection of the target student groups (approx. 50 participants)		
	First round of data collection (HSE students)		
Part 2	Second round of data collection (students + friends)	Tracking changes in social aspects in (short-term) time period	Jan 2015- Aug 2015
	Update of the questionnaire about the influence on the human capital		
	Creation of a questionnaire about the influence on the neighbourhood		
	Selection of target social places in cities		
Part 3	Third round of data collection (students + friends + visitors of local social spaces)	Tracking changes in social and urban aspects in (long-term) time period	Sep 2015- May 2016

In this paper, we present results of the first part of this study: research design, literature review on internationalization of HEI and the current state of social networks between Russian and international students of four HSE masters groups who arrived in Russia in September 2014. These groups consist partially from Russian-speaking and international students (Table 2). Students are expected to graduate in 2016. Masters groups were chosen depending on the quantity of international students and varying amount of humanitarian studies (that implies a larger amount of social connections). The selected groups are shown in Table 2.

Table 2

Selected master programs at HSE and their characteristics

№	Faculty/ Master program name	Overall amount of students	International students	Active members in the group
1	Business Informatics: MSc in Big Data Systems (MA)	30	10	16
2	International Relations: International Relations in Eurasia (MA)	23	22	14
3	Political Science: Public Policy (MA)	39	13	15
4	Science and technology: Master of Science "Governance of Science, Technology and Innovation" (MA)	24	6	14

Toward the first hypothesis, we are tracking the dependent variables presented in Table 3.

Table 3

Conceptualization of the student's human capital

Internationalization of Russian University improves Russian students human capital	
Concept	Development of students human capital
Constructs (formative)	Intercultural sensitivity (Hammer, Bennett, & Wiseman, 2003) Readiness to mobility
Independent variables	Belonging to a certain type of group (country)
Dependent variables (metrics)	Russian students International employment rate (%), Russian students ERASMUS participation rate (%), Russian students International PhDs rate (%), Russian students level of intercultural sensitivity (Hammer, Bennett, & Wiseman, 2003)
Behaviour	Network will be used to measure the social environment variables: density of the communication network, prestige, centrality

Toward the second hypothesis, we are tracking the dependent variables shown in Table 4.

Table 4
Conceptualization of the Smart City development

Internationalization of Russian University change the Campus and the city around	
Concept	Development of the neighbourhood areas
Constructs (formative)	Citizens human development Campus/city infrastructure development
Independent variables	Geographical location of campuses, age and rank of university
Dependent variables (metrics)	Level of citizens intercultural sensitivity (Hammer, Bennett, & Wiseman, 2003), citizens international awareness, amount of intercultural events in the neighbourhood, amount of social places in the neighbourhood, amount of English signs in buildings in the neighbourhood
Behaviour	Network will be used to measure the social environment variables: density of the communication network, prestige, centrality

The main research method for data gathering is a deductive trend search using a literature review for theoretical foundation. Afterwards, a quantitative analysis will be conducted in order to determine the dynamics of friendship and learning networks at the beginning and the end of each module. In carrying out the empirical analysis on the longitudinal data set, we expect to find evidence about the effect of internationalization on the target groups (immediate and short-term) and the campus environment (long-term).

In order to detect the dynamics of the changes (or their absence) we collect the data every six months by survey and track the results. The final dataset will consider two years (from 2014 to 2016) and around ten variables (Tables 1, and 2) which describe the outcomes.

4. Literature review on internationalization practices

In the context of this research, the theoretical foundation is set in a form result of literature review research in order to gather opinions from the scientific domain about the current benefits of HEI internationalization in terms of its current issues and with an eye on the Smart Cities eco-system urban development.

The literature review was completed through keyword search in top-cited journals and indexed e-Sources: SCOPUS, Emerald, ScienceDirect. The classification was done in the following way:

- ‘Sources’ refers to the name of the reviewed journal.
- ‘Search words’ represent the keywords used in the search query.
- ‘Hits’ show the number of results as reported by the query engine.
- ‘Reviewed’ involves the number of papers reviewed.

The selection process was based on reading the abstracts. Additional sources were investigated and analysed for an appropriate content.

The notion of internationalization was described in many papers, e.g. Asderaki and Maragos (2012), Altbach and Knight (2007), and De Wit (1998), that produced several confusions. Table 5 encompasses the notions and underlines the keywords by comparing the definitions.

Table 5

Main differences between the notions of university internationalization

Author	Notion of Internationalization
Altbach and Knight (2007)	<i>“Internationalization includes the policies and practices undertaken by academic systems and institutions—and even individuals—to cope with the global academic environment”.</i>
Asderaki and Maragos (2012)	<i>“Internationalization is an inextricable dimension of contemporary global, regional, national and institutional higher education policies where in the centre lies the mobility of students, researchers and academic staff as well as the mobility of the knowledge or the knowledge products.”</i>
De Wit (1998)	<i>“Internationalisation of higher education is the process of integrating an international/intercultural dimension into the teaching, research and service functions of the institution” and includes several important elements: process, response to globalisation and both international and local intercultural elements.</i>

4.1. Influence of internationalization on students human capital development

Historically large attention was attracted to international student’s personal benefits from internationalization, i.e. in frames of push-pull theory that studied the mobility of students for decades. Altbach (1998) pointed out that some students were pushed by unfavourable conditions in their home countries. However, the theory faced criticism (Lee, Maldonado-Maldonado, & Rhoades, 2006). The push factors created a generalized interest in overseas education but did not give specific direction to individuals, while the pull factors were specific to potential host countries and institutions (Davis, 1995). Zheng

(2003) observed that the existing push-pull model mainly focused on the educational, economic and political dimensions of the sending and host countries, and that it underplayed social and cultural factors.

In Australia and overseas, private and public sector employers are demanding graduates with an understanding of cultural and social diversity, with the capacity to work effectively in diverse communities or with people who may have very different life experiences and world views. Substantial evidence from a number of studies shows that organizations employing and encouraging diverse work groups tend to be more innovative and flexible (Schrum & Benson, 2000). Studies also show that such groups make better decisions because they draw from a wider base of experience (McConnell, 2000).

Zhu and Ma's (2011) work was devoted to the Socio-Cultural Learning of international students in China mainland, i.e. the learning experience and the knowledge that the permutated group of students obtained through social and cultural activities they became involved. These students were adapting into local socio-cultural life by doing voluntary work in local communities. MA students from Nigeria, Malawi, and Philippines kept visiting a local nursing home for the elders of no family, and the MA students from Colombia, Nigeria, and Philippines voluntarily taught English in local kindergartens. Other cross-cultural learning experiences came from making an International Education Calendar, holding monthly birthday-parties, celebrating the national days of different countries, and giving speeches on folk culture and art at the program's public seminars.

4.2. Contribution of internationalization to the regional development

The OECD (The Organization for Economic Co-operation and Development) mobilises Higher Education for its role in regional development. Those reviews of policy and practice in selected regions were launched in 2004 to help build capacity at the national, regional, and institutional levels and to make colleges and universities more active in and responsive to their cities and regions. OECD indicates the intention to increase the skills and knowledge of residents as a means for human and social development (OECD, 2005).

Cities, to compete nationally and internationally, need knowledge infrastructures; a concentration of well-educated people; technological, mainly electronic, infrastructure; and connections to the global knowledge-based economy (Yigitcanlar, O'Connor, & Westerman, 2008). Globalization and the technological revolution have far-reaching implications for cities and regions. Universities contribute not only to an economic prosperity of a city but to its civic vibrancy and diversity as well, building communities that transform into small companies (Ischinger & Puukka, 2009). It is becoming clear that despite the "death of distance," innovation continues to cluster around specific regions and urban centres that have skilled people, vibrant communities, and the infrastructure for innovation. The competitive advantage of regions could be in the dominance of small and medium-sized enterprises (SMEs) supported by the local university that create the best conditions for city growth and development (Ischinger & Puukka, 2009).

Knowledge-based development strategies play an important role in supporting local economic development of cities in the knowledge era (Yigitcanlar & Velibeyoglu, 2008). Florida (2009) points out places like Silicon Valley, where success lies in a high tech cluster of great research universities, abundant venture capital and entrepreneurial startup companies. This move pushed cities to develop new urban quarters to form creative urban regions with a particular focus on knowledge production: integrated

centers of knowledge generation, learning, commercialization, and lifestyle that are created through a cooperative partnership of all tiers of government, research and education community, private sector operators, highly talented professionals, and the public (Henry and Pinch, 2000), (Yigitcanlar & Velibeyoglu, 2008).

There are a number of cases where the university plays a key role in the regional development transforming the local economies from institutionally thin rural and peripheral regions to fragmented metropolitan ones through strong industry-university links.

A survey of Ischinger and Puukka (2009) shows several examples of obvious contributions of HE to several cities' development with a clear contribution for HE for its role in the regional development. It showed fourteen regions represented in different regional and national contexts, ranging from institutionally thin rural and peripheral regions to fragmented metropolitan ones where universities helped to build a regional innovation system that connects the university, public authorities, and business and industry creating a high concentration of knowledge, qualified labour and skills. For example, the Norwegian University of Technology (NTNU) has played a key role in the development of the city of Trondheim through its students—in fact now every sixth inhabitant is a student (Ischinger & Puukka, 2009).

The literature review conducted on the subject, e.g. Altbach (1998;2003), Ischinger and Puukka (2009), Knight and De Wit (1995), Brandenburg and Federkeil (2007), De Wit (2000;2002), and Deutsch (2007), revealed that the previous research was aimed mostly on the positive effect on international students but neither on local students, their collaborative social networks nor city changes.

5. Design of the survey

The survey questions were arranged in three parts, each part addressed some aspect of the students social life in Russia.

The questionnaire contained three parts. The main part, devoted to the building of social networks, asks the participants in the survey to reflect on their social circles: with whom, how intense and for which purposes he/she collaborates. The empirical analysis is based on network methods, where nodes are the students, their university friends and the friends of their friends (in the neighboring city block) as shown in Table 6.

In the second part of this study, a graphical analysis of the two-tier friendship and learning networks will be conducted in order to identify the overall social network structure, and identify possible patterns of the sub-group development, as recommended by Wasserman and Faust (1994). Potential nodes come from students, their friends (at university, one-tier), and friends of friends (campus, two-tier). The potential relationships represent formal and informal connections between them (see Fig. 3).

The aim of the second part of the questionnaire is to detect the satisfaction of the participants in the survey about his/her social circle in Moscow. Which social places does he/she visit? How often does he/she seek help from the international students' office? Who does he/she trust more: local students or national friends, etc.?

The third part of the questionnaire comprises Hammer, Bennett, and Wiseman's (2003) intercultural sensitivity scale model, a widely used tool to detect the level of tolerance and cultural understanding (Li, 2006) as shown in Tables 7 and 8.

Table 6

First part of the survey – Discovering social networks

Your classmates in your student group with whom you most interact	Show the intensity of your professional and friendship links (1 is the weakest, 7 the strongest)
Name 1 _____	Professional ①②③④⑤⑥⑦ Friendship ①②③④⑤⑥⑦
Other contacts from Higher School of Economics (incl. staff and dormitory neighbors excl. Classmates)	Show the intensity of your links (1 is the weakest, 7 the strongest)
Name 2 _____	①②③④⑤⑥⑦
May I ask him/her to full in the survey?	
Other friends from city	Show the intensity of your friendship links (1 is the weakest, 7 the strongest)
Name 3 _____	①②③④⑤⑥⑦
May I ask him/her to full in the survey?	

Table 7

Developmental model of the intercultural sensitivity (DMIS) (Hammer et al., 2003)

①	②	③	④	⑤	⑥	⑦
Strongly disagree	Disagree	Somewhat disagree	I don't know	Somewhat agree	Agree	Strongly agree
1. I enjoy interacting with people from different cultures.					①②③④⑤⑥⑦	
2. I think people from other cultures are narrow-minded.					①②③④⑤⑥⑦	
3. I am pretty sure of myself in interacting with people from different cultures.					①②③④⑤⑥⑦	
4. I find it very hard to talk in front of people from different cultures.					①②③④⑤⑥⑦	
5. I always know what to say when interacting with people from different cultures.					①②③④⑤⑥⑦	
6. I can be as sociable as I want to be when interacting with people from different cultures					①②③④⑤⑥⑦	
7. I don't like to be with people from different cultures.					①②③④⑤⑥⑦	
8. I respect the values of people from different cultures.					①②③④⑤⑥⑦	
9. I get upset easily when interacting with people from different cultures.					①②③④⑤⑥⑦	
10. I feel confident when interacting with people from different cultures.					①②③④⑤⑥⑦	
11. I tend to wait before forming an impression of culturally-distinct counterparts.					①②③④⑤⑥⑦	

12. I often get discouraged when I am with people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
13. I am open-minded to people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
14. I am very observant when interacting with people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
15. I often feel useless when interacting with people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
16. I respect the ways people from different cultures behave.	① ② ③ ④ ⑤ ⑥ ⑦
17. I try to obtain as much information as I can when interacting with people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
18. I would not accept the opinions of people from different cultures.	① ② ③ ④ ⑤ ⑥ ⑦
19. I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.	① ② ③ ④ ⑤ ⑥ ⑦
20. I think my culture is better than other cultures.	① ② ③ ④ ⑤ ⑥ ⑦
21. I often give positive responses to my culturally different counterpart during our interaction.	① ② ③ ④ ⑤ ⑥ ⑦
22. I avoid those situations where I will have to deal with culturally-distinct persons.	① ② ③ ④ ⑤ ⑥ ⑦
23. I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.	① ② ③ ④ ⑤ ⑥ ⑦
24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.	① ② ③ ④ ⑤ ⑥ ⑦

The DMIS model distinguishes six attitudes to foreign mentalities, from denial to integration as shown in Table 8.

Table 8
Ethnocentric stages

1. Denial	2. Defence	3. Minimization
There is no reason to know something about foreign cultures.	My own culture is superior to foreign cultures in many aspects.	All human beings are similar despite some superficial differences.
COGNITIVE		AFFECTIVE
Ethnorelative stages		
4. Acceptance	5. Adaptation	6. Integration
Differences among people are not a problem, they are of interest for me.	I use different standards to the evaluation of situation in foreign cultural contexts.	I almost feel as comfortable in another culture as I do in my own culture.
AFFECTIVE		BEHAVIOURAL

6. Early results from the research study

Although the total of 92 respondents from the four student groups is not a statistically representative sampling, it is sufficient to demonstrate the major trends in a particular institution. HSE is evidently in the better position than a number of other universities in Russia in terms of internationalization and therefore, in creating a multicultural environment around its campus. However there are still several main differences between best educational practices in Russia and other international experience:

1. A large number of international students who are selected in accordance with the national quotas permitted by the Ministry of Education and Science of Russia;
2. Separate logging of international students and lack of informal relation with the local youth;
3. The overwhelming role that an International Students Office plays in international students' life.

Contrary to the vast number of European universities, international students in Russian universities are less engaged in the local social life. Lodging separation at dormitories seems to be the primary reason behind the social separation between Russian speaking and non-Russian speaking students. The majority of international students, who were approached, complained about isolation and expressed an interest in engaging with locals. The majority of matriculated students from Russia are settled in dormitories out of Moscow, while their international counterparts stay at the separated International Student dormitory next to the city centre. Around the world, dormitories are accounted as a centre of intercultural interactions (for example, shared cooking, celebrations and assistance). In Russia, there are additional social barriers hampering socialization, the spread of information and the creation of a common student culture. The control of students through the security and administrative staff, the interference in the students' private areas, the early building lock up and difficulties inviting guests, bring additional problems in engaging with the local students.

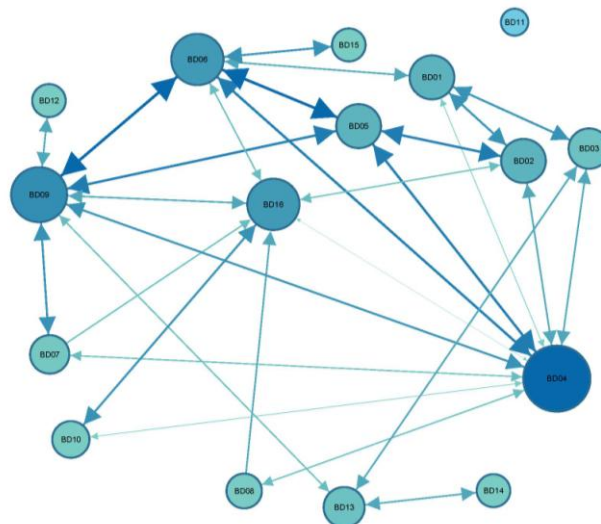


Fig. 3. Social network of 'The big data systems' master group depicting the student centrality and the communication intensity

The first results from the literature review and the awareness of the current developments in Moscow lead to the following propositions for the enhancement of the internationalization effects and Smart City developments:

1. Elimination of social divide between “Russian-speaking” and “non- Russian-speaking” students, which results in separated accommodation and treatment;
2. Supporting the “melting pot” of self-organized events and international clubs encouraging cross-discipline social collaboration and volunteering;
3. Enhancing the interest in Russian language and culture and the involvement of international students in the urban life around their campuses;
4. Facilitation of a legal foundation for international students to part-time work;
5. Create a network of universities that make internationalization efforts inside Russia;
6. Enhance internationalization in certain universities in areas where international knowledge /expertise/scientific exchange is needed;
7. Create a venture fund to support student mobility in a highly competitive manner.

7. Conclusion

This paper presents the results of the first part of the study on internationalization of HEI, namely research design, and literature review as well as the current state of social networks between Russian and international students of four masters groups. We identified and discussed factors that are reducing the positive impact of HE internationalization on Russian students that appears as a key component in the Smart City development of a urban eco-system that is based on innovative education and citizens involvement in urban processes.

Our ongoing research will proceed with the long-term survey results, explore the dynamics of social networks in the context of urban development, observe the trends as well as the influencing factors in this process, and forecast potential opportunities for Smart City development and Smart City education.

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