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INTERACTION PATTERNS OF UNIVERSITY ALUMNI: THE CASE OF NaUKMA

The paper suggests a research design for the exploration of the community of university alumni. The main research focuses on the personal networks of three types of alumni, specifically those who are actively involved in their alma mater activities after graduation, those who become faculty and staff in the university, and those who remain inactive and occasionally visit the alumni events. In addition, we raise the question about the network effect of the ties established during studying in the decision of alumni to stay in the university or to remain closely involved in its life. The survey design is based on the personal network approach with the use of the adapted name generator and interpreter.

Keywords: university graduates, alumni community, social network analysis, personal network design.

The university depends on its alumni, since these people's values, activities, and work-related performance affect the university prestige in the job-market, and consequently forms its good or bad reputation. The image campaign of the National University of Kyiv-Mohyla Academy (hereinafter referred as the NaUKMA, KMA or Mohylianka) states that one of the leading Ukrainian universities appreciates its past and builds its future with the help of alumni and current students. Information about the alumni community allows for understanding who these people are, what their student experience was like, how alumni maintain relations with their university peers through time and space and, eventually, what makes alumni support the university by donating money, engaging in its events and happenings, promoting it and/or staying there as employees.

The unique Mohylianka spirit¹ – the community, student identity, humanism, creativity, leadership, quality, national consciousness, democracy and active citizenship position – serves as the basis for the community of the NaUKMA students, it sets the “rules of the game” for the student activities, including interaction with each other, with the faculty, and behaviour with regard to the NaUKMA after the graduation. This, in turn, “synchronizes” the value profiles of students and leads to the formation of Mohylianka community that unites people who share common beliefs and are exposed to Mohylianka spirit.

This paper suggests the initial steps of studying the NaUKMA alumni community formation

principles focusing on the network aspects of the interaction between the alumni and the NaUKMA after graduation. It is assumed that much influence on the character of such interaction is provided by the network of contacts of a particular alumna or alumnus and the partition and significance of the “KMA people” component in the network. Theoretical section contains an overview of the literature on alumni networks studies, a description of institutional and informal opportunities for the NaUKMA community formation. The empirical part is based on the results of pilot interviews with the NaUKMA alumni of different cohorts and faculties conducted during March-April 2017. Three types of informants were covered: a) alumni who actively participate in the life of the NaUKMA as volunteers through the KMA Alumni Association, university projects or events, b) those alumni who stayed in the NaUKMA as teaching or research faculty; and c) those alumni who barely attend the NaUKMA events and are poorly involved in its activities after graduation. The conclusion and discussion section suggests the possible application of pilot results in the university communication strategy towards the alumni community and the perspectives for further research on “Mohylianka spirit” among the NaUKMA alumni.

Network studies of the university alumni community

A growing body of literature is focused on the utility of alumni networks in terms of job seeking, or on alumni as sources of information for study programs upgrades (Ingram et al., 2005). Most of the research on the role of the university in

¹ <http://www.ukma.edu.ua/index.php/about-us/sogodennya/pryznachennia-ta-misiia>

community formation are rooted in the concept of “elite universities” described by Bourdieu (1998) who claimed that few universities reproduce elites, and those who are able to enter such universities should have a specific social and cultural capital that is boosted in these universities even more. This entering to elite universities pursues the goal of creating specific social environment that, in turn, serves as the ground for the formation of a unique club-like university community. Brezis goes further and claims that a few TOP universities worldwide reproduce the transnational business elites and thus relates the graduation from the elite university with the economic growth (Brezis & Crouzet, 2006; Brezis & Hellier, 2013).

Bourdieu’s studies were inspired with the works on the role of the identity and network-based behaviour by Peter Callero (1985) and then continued a few decades later by Travis McDearmon (2013). Callero’s studies of blood donors’ networks for revealing the network effect on people’s choice to donate blood and on their identity as donors claimed that “salience of the blood donor role-identity was positively associated with the development of interpersonal relationships linked to blood donation” (Callero, 1985, p. 211). These results were then applied in studying the alumni role in identity salience by McDearmon who revised and complemented Callero’s questionnaire to survey blood donors in

order to study university and college alumni and their involvement in post-graduate interactions with universities and colleges. McDearmon emphasized that responsibility for alumni-university relations lies on both parties of the communication, and his study focused on the side of alumni. He distinguished between the role of alumni (what university expects from its graduates) and the alumni identity (whether alumni incorporate the expectations of the university into their self-perception). Moreover, he designed the tool to measure the salience of the alumni role identity – that is, the readiness of a person to act out the expectations (see Fig. 1 below).

Mael and Ashforth explored the university’s role in community formation looking for the factors that influence alumni attachment and involvement (Mael & Ashforth, 1992). They surveyed 297 alumni of an all-male religious college using their theory of organization identification and discovered the factors that affect alumni’s feeling of belonging to their “alma mater” (Fig. 2). They concluded about two types of factors: 1) organizational: organizational distinctiveness, organizational prestige, absence of intra-organizational competition, and 2) individual: personal satisfaction with the organization, tenure as students, and sentimentality which refers to “tendency to retain emotional and/or tangible ties to one’s past, and to derive pleasure from discussing or reliving one’s past” (Mael & Ashforth, 1992,

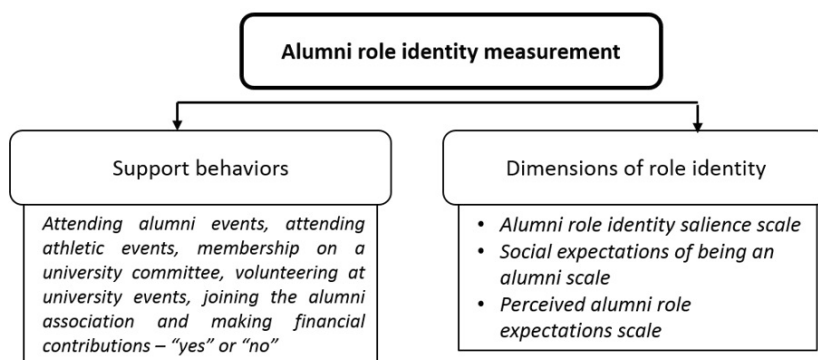


Fig. 1. McDearmon’s view on the tool design for alumni role identity research

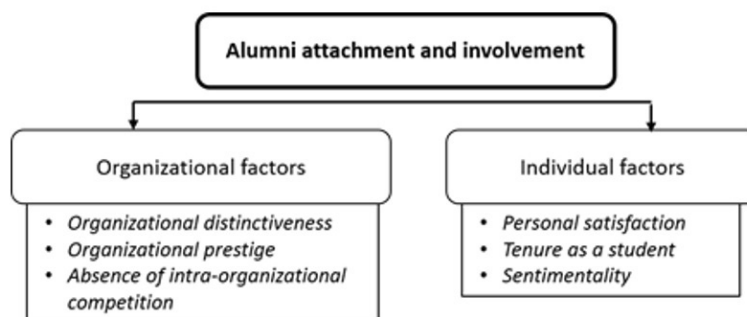


Fig. 2. Mael and Ashforth’s (1992) view of factors contributing to alumni attachment and involvement

p. 108). Despite the fact that the sample of their study was very specific – all-male students of religious college, – the results are pioneering in this field of studies and therefore important for future research, the perspective suggested by Mael and Ashforth fits into the NaUKMA framework showing distinctiveness described above, as well as devotion and attachment to “Mohylianka spirit”.

The NaUKMA community as a network

There are very few empirical studies available on the NaUKMA alumni community (i.e. Kostiuchenko, 2011). We assume that two possible major factors influence on the formation of the NaUKMA community: Mohylianka spirit as a set of values and attitudes, and intensive interaction of the students during the years of studying (Fig. 3).

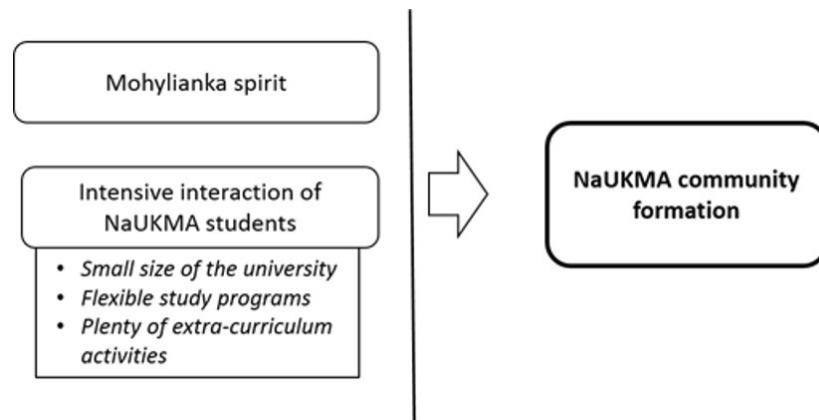


Fig. 3. Factors contributing to the NaUKMA community formation

It might be claimed that “Mohylianka spirit” is embedded in the corporate culture of the NaUKMA. There is a research on the NaUKMA corporate culture conducted by Daryna Zaporozhets in 2009 (Zaporozhets, 2009). Zaporozhets polled students and administration of the NaUKMA using the representative sample in order to find out the state of affairs within and specificity of the NaUKMA corporate culture. She discovered that the definition of Mohylianka spirit most shared by the students is that it is “mutual respect between members of the community, upbringing of national identity and love for mother tongue, and raising a freedom-loving personality that still is liable to oneself and to the society” (Zaporozhets, 2009, p. 42). Mohylianka spirit leads to a kind of homophily of “KMA people”. Homophily, as one of key concepts in the network paradigm, is defined as “friends, spouses, romantic partners, co-workers, colleagues, and other professional and recreational associates all tend to be more similar to each other than randomly

chosen members of the same population with respect to a variety of dimensions, including race, age, gender, socioeconomic status, and education” (Kossinets & Watts, 2009, p. 406). In other words, that is similarity of those who are connected, interacting with likeminded people ².

The online project “Moya Mohylianka” (My NaUKMA) collects interviews with the NaUKMA alumni. Many interviewees mentioned “Mohylianska mafia” (mafia of the NaUKMA) – a slang name of both real and hypothetical network of ties between the students and alumni of the NaUKMA. It refers to the ties that actually exist between KMA people who used to study together, as well as to the perception of people whom one does not know personally from before but becomes more favourable after finding out that this person is from the NaUKMA. The principle of “Mohylianska

mafia” works for job-seeking and job-related matters, according to interviewees of “Moya Mohylianka” project: “*Even if at the end of the world will be only two people, believe me, one of them will be from Mohylianka*”, – Svitlana Kiseliouva says (Чадюк, 2016). However, the community is growing every year since 1991 when the NaUKMA was reopened: “*Out of the two thousand people who studied at KMA, I greeted with about five hundred*” (Шнайдер, 2016).

Another major contributor to the NaUKMA community formation – intensive interaction of the NaUKMA students – is related to the format of the studying process and extra-curriculum activities in the university. The Kyiv-Mohyla Academy is a relatively small university that counts around 4,000 students studying in undergraduate and graduate programs in six faculties. Thus, the average size of

² In the literature on homophily principle a “chicken-egg” problem is debated: whether people become similar as a result of interaction or they start interact because of being similar.

the studying group on the undergraduate program is around 50 people, and it is smaller for graduate (master) programs. The small size of the university becomes more evident if one takes a look at other top-ranked universities of Ukraine (according to TOP-200 universities of Ukraine ranking): Taras Shevchenko National University of Kyiv counts 26 000 of students and 13 faculties, National Technical University of Ukraine “Kyiv Polytechnic Institute” counts 25 thousand of students and 19 faculties, Ivan Franko National University of Lviv counts 19 thousand of students and 19 faculties, Vasyl Karazin Kharkiv National University counts 15 thousand of students and 20 faculties, and so on. Interaction in smaller groups leads to denser, or better connected, networks, and less subgroups within a group, or lower fragmentation.

In addition to a relatively small number of students, the NaUKMA introduced the Liberal Arts Education system in 1992 enabling the students to create their own studying plans. Students are allowed to choose the courses of their interest and to choose them from the departments of other faculties in addition to mandatory courses. As a result, they have selective courses with students of other faculties and departments which enables them to become acquainted with other programs and faculties beyond their own.

An overwhelming amount of extra-curriculum activities also contributes to the intensive communication of the students during studies. Two most important and most crowded celebrations that are held in the NaUKMA are the Academy Day on October 15, Posviata and Graduation Ceremony for the students and faculty, as well as KMA Old School Party and Charity Gathering for the alumni. These university celebrations provide the framework for the communication of the NaUKMA students and alumni of different generations. New students become aware of the traditions of celebration and many graduates of all years come to celebrate and meet their university friends and professors twice a year. Moreover, various student-organized events (concerts on the days of each faculty, Miss NaUKMA, Mister NaUKMA, boat parties, Boont, etc.) are arranged.

In addition to listed above, the NaUKMA campus is rather compact, most of the university buildings are allocated around two squares called “platz” with trees and benches, where smoking and drinking alcohol is prohibited. Kulturno-Mystetskyi Center (Center of Culture and Art) is another influential informal networking framework in the NaUKMA today. This place in the community is called “KMC” as an acronym of its name. It is a legendary place for

lots of generations of the NaUKMA students since it is a final after-party point for every event organized in the NaUKMA (including the official celebrations such as Posvyata or the Graduation Ceremony). Two co-working platforms were established close to KMC: outdoor KMArt Yard and indoor KMArt Space. Anyone could organize educational or entertaining event there. Both spaces were established and run by the NaUKMA alumni Viktor Kylymar and Tymur Demchuk.

Alumni Association founded in 1995 put the most effort in the formation of the NaUKMA alumni community (Субтельний, 1995). It was registered as NGO in 2004, but its systematical and structured work began only in 2011 with Vitalii Shaposhnykov elected as a president of Alumni Association of the NaUKMA. The official website of the Association states that its mission is to “unite the NaUKMA graduates in a clan” and to “create opportunities to increase social capital and personal development” for each participant of the association³. The core members of the Association were initially the members of either the informal organization FEN Alumni (alumni of the Faculty of Economic sciences) and the community of active alumni of the Faculty of Law. One of the most visible projects of the Association was KMABIZKON (KMA Business Conference) held several times in 2013–2017. That was an event where the NaUKMA alumni who were CEOs of different companies shared their experience in running business and the role of Mohylianka education and ties in that. KMABIZKON aimed at enhancing networking and information flows within the alumni community.

The activity of the NaUKMA Alumni Association receives strong support of the NaUKMA Alumni Office. This university department is in charge for maintaining communication between the NaUKMA and its alumni and for encouraging the information flows between current and former students. Three major fields of department work are the weekly newsletter delivered to every alumni whose e-mail address is in the base, course of soft-skills trainings “Profi+” for the NaUKMA students held by the NaUKMA alumni, and closed season meet-ups of the NaUKMA students and alumni who have the ongoing and systematical the NaUKMA projects of different types (organizers of entertaining and educational events, representatives of student organizations and initiatives). Also, the NaUKMA Alumni office collects news about the state of affairs in the NaUKMA and achievements of alumni on its Facebook page.

³ <http://kmaalumni.org.ua/right-sidebar-template/>

Studying University Alumni with SNA Approach

According to Van der Hulst, social network analysis (SNA) “is an arithmetical technique that analyzes relational patterns of nodes (actors) and connections (ties) based on mathematical computations” (2009, p. 103). Freeman defines SNA as “an approach to social research that displays four features: a structural intuition based on the ties linking social actors, systematic relational data, graphic images and mathematical or computational models” (2004, p. 10). Kadushin (2012) claims that SNA reveals what is hidden from the sight of a beholder.

There are three main approaches in conducting the network research, specifically studying the personal (ego-centered) network, complete (socio-centered) network, of affiliation network. The first one is applied in the pilot study of the NaUKMA alumni interaction patterns. One of the reasons to apply a personal-network design is that we were interested in the partition of the NaUKMA people in relation to non-NaUKMA people in the social surrounding of the alumni.

The *key concepts* of the pilot survey are listed in the alphabet order below:

- *Actors*. All the people listed in the social network, also may be referred to as vertices or as nodes (Prell, 2011, p. 8).

- *Actor attributes*. Additional information on each particular actor (Prell, 2011, p. 8).

- *Alters*. People from the personal network in SNA to whom ego is directly connected (Prell, 2011).

- *Components*. A component in an egocentric network is a set of alters who are connected to one another directly or indirectly. Unlike a clique, the members of a component do not have to be connected to everyone else in the subgroup. If there is a path to an alter, they will be a member of the component. A network with many components implies a compartmentalized network. (McCarty, 2002, p. 11).

- *Ego-network*, or *Ego-centered network*. A specific kind of network in SNA comprised of a focal actor (called ego) and the people to whom ego is directly connected (Borgatti, Everett & Johnson, 2013, p. 262).

- *Homophily*. A phenomenon that is contributing to establishing the connection between two nodes, if two people have characteristics that match in a proportion greater than expected in the population from which they are drawn or the network of which they are a part, then they are more likely to be connected (Kadushin, 2012, p. 18).

- *Individual-level homophily*. A type of homophily that is widely applied in ego-networks studies: persons are more likely to have a connection, friendship, or association if they have common attributes (when they are similar). A common educational background is a setting for establishing a strong tie between two actors providing them, besides other attributes, with status-homophily.

- *KMA people*. Those people who are related to the NaUKMA as current university students, graduates, and/or employees.

- *Network*. The set of relationships that contains a set of objects (in mathematical terms, nodes) and a mapping or description of relations between the objects or nodes (Kadushin, 2012, p. 14). In our study, the nodes are friends and acquaintances of one single node (respondent, ego-actor); links between them are defined by the respondent and indicate the fact of being acquainted (or not acquainted) and the perceived closeness of a tie.

- *The NaUKMA alumni*. Students who were studying at and graduated (obtained any degree) from any department within the National University of Kyiv-Mohyla Academy.

Sample. A sample is designed as the one for a qualitative pilot study and covers all six faculties of the NaUKMA, the cases ranging by the type of connection between alumni and the NaUKMA after the graduation:

- 1) Group 1: alumni who are actively involved in the life of the NaUKMA as organizers of the events and projects, and who also might be members of the NaUKMA Alumni Association;

- 2) Group 2: alumni who continue working in the academy as lecturers or in other positions after graduation;

- 3) Group 3: alumni who either do not actively participate in the events and the life of Academy or do not participate at all.

As the survey is intended to be a pilot, the sample was not aimed as statistically representative of the NaUKMA alumni community, but it covered all six faculties and various years of graduation (see Tables 1–2).

Informants were recruited through the researchers' 1-step connections and through the Alumni Association. Those alumni who were recommended by some of the common acquaintances were assessed by the researchers in terms of eligibility for the pilot study sample: the year of graduation should be no later than 2014 so that this person could have expanded their own network with “non-KMA people” after the graduation. Besides, their faculty of study mattered since the sample should cover each of the NaUKMA faculties. Recruiting of the whole sample took about two weeks in March 2017, and all interviews were

Table 1. Survey sample composition by gender and year of graduation

	Informant	Gender	Year of graduation	Description
Group 1	Informant 1 (R1)	Female	2007 (BA)	Co-organizer of KMA Old School Party – big entertaining event held after the official part of Konvokatsiia (Graduation Day)
	Informant 2 (R2)	Female	2006 (BA, Spec.)	Creator of the skills upgrade program of the NaUKMA professors
	Informant 3 (R3)	Male	2010 (BA, MA)	Co-organizer of one of the events in Alumni Association
	Informant 4 (R4)	Male	2013 (BA, Spec.)	Active member of alumni initiative group, co-organizer of different events in the NaUKMA since 2010
Group 2	Informant 5 (R5)	Female	2009 (BA, MA)	Senior lecturer at the Faculty of Social Sciences
	Informant 6 (R6)	Female	2008 (BA, MA)	Senior lecturer in the Mohyla School of Journalism
	Informant 7 (R7)	Male	2009 (BA, MA)	Senior lecturer at the Faculty of Natural Sciences
Group 3	Informant 8 (R8)	Female	2013 (BA, MA)	Alumni, Faculty of Humanities
	Informant 9 (R9)	Male	2009 (BA)	Alumni, Faculty of Computer Sciences
	Informant 10 (R10)	Male	2010 (BA)	Alumni, Faculty of Natural Sciences

Table 2. Sample composition by faculties

Sample distribution by the NaUKMA Faculties (BA)					
Law (FPvN)	Social sciences (FSNST)	Economic sciences (FEN)	Humanities (FHN)	Natural sciences (FPrN)	Computer sciences (FI)
R4	R3, R6	R2, R5	R1, R8	R7, R10	R9

conducted during March-April 2017. Nine out of ten interviews were conducted face-to-face via the personal meetings in Kyiv⁴. Each interview took about 1.5 hours including 60–70 minutes for filling in the questionnaire and 20–30 minutes for the after-talk about the answers and the experience of being the NaUKMA alumni.

The questionnaire. The questionnaire consists of five parts: the screener and socio-demographic block of questions, name generator, name interpreter and name inter-relater (Fig. 4, and Annex A). All parts of the questionnaire except for the screener are self-reported. The language of the questionnaire is Ukrainian because the Ukrainian language is one of two official languages in the NaUKMA so all alumni know it well.

Screener. The screener was used to recruit informants with the maximal distribution by academic disciplines and minimal distribution in the year of graduation (within 10 years backwards in the time of the pilot study) to make data more applicable for comparison case by case. Another task of the screening process was to assign informants relatively

evenly to three categories of the sample (Groups) ranged by the intensity of participation in the NaUKMA activities after the graduation: attendance of different university events, membership in the NaUKMA Alumni Association, experience of teaching in the NaUKMA, etc. Also, the screener filtered respondents with the background in sociology – they were not recruited in the sample owing to the professional ethics and in order to avoid collecting the biased data at this stage.

Socio-demographic block. The socio-demographic block contained five questions to collect basic credentials about the informant that are necessary for recognizing this respondent as applicable and for further usage of these data in analysis: the name, gender, age, the city of origin (before entering the NaUKMA), experience of living in the university dormitory.

Name generator. Name generator is the first step in gathering data for the personal-network analysis. Its purpose is to generate the list of names/nicknames of people who constitute the respondent's personal network in a particular social world. There are different approaches to design name generators which depend on the purpose of the study: it might be a friendship network, an advice-seeking network, a resource-seeking network, and so on. In this study, name generator consists of four questions that altogether round the respondent's personal and

⁴ Informant 9 was provided with the on-line self-reported version of the questionnaire as an exception because he was in lack of time and opportunity for the personal meeting. However, since he was the only suitable informant of the Faculty of Computer Sciences the researchers could find within the fieldwork period; and it was of a high priority to receive this respondent's personal network data as he is ready and willing to participate in the study.

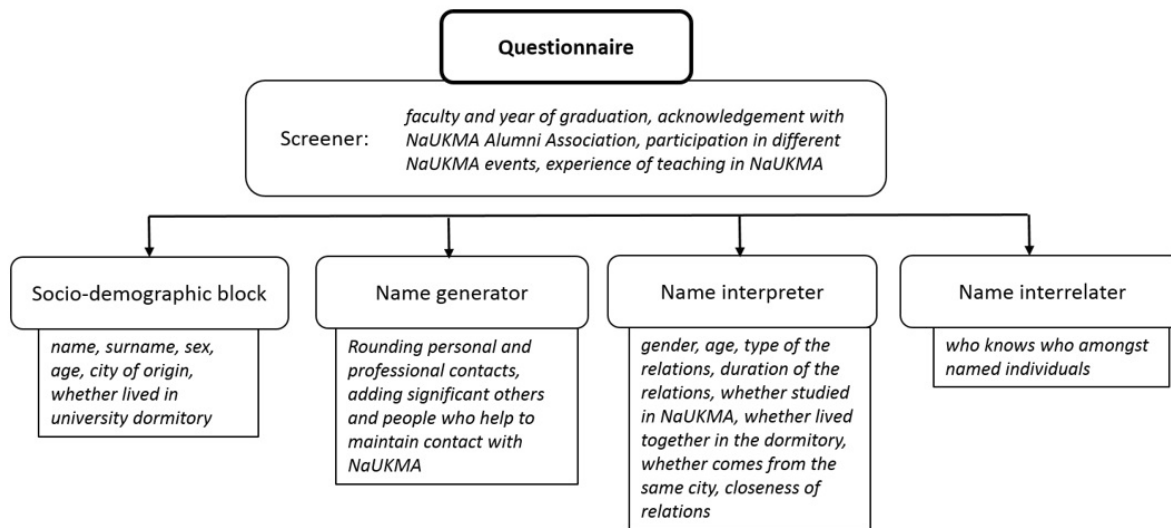


Fig. 4. The structure of the questionnaire

professional contacts of the moment of the survey. Also the resulting list includes people who are respondent's "bridges" to today's NaUKMA life, which is important for the study since it shows which channels of communication with the NaUKMA are available to the respondent. That is why the decision on the number of people listed and their type is crucial for the study (Martin & Hampton, 2007). It is expected that this type of name generator and the resulting list of names allow to obtain a rather accurate number of people who are significant for the respondent at a time of the survey.

Name interpreter. Name interpreter is a section to collect alters' information, such as the gender, age group, the type of the relation with the informant, perceived closeness of the relation, whether s/he studied in the NaUKMA, whether she/he originates from the same city as the informant does, whether s/he used to live in the same venue as the informant did during the study years. Information about the experience of studying in the NaUKMA is necessary for testing the hypothesis about the individual-level homophily based on common educational background. The type of the relations, closeness of the relations, its duration and the experience of living together in one venue are analysed in terms of the tie strength and explanation for it. The gender and age are typical demographic attributes asked in the questionnaires and might be used for testing homophily hypotheses in further studies.

Name interrelater. The most time-consuming part of the questionnaire was the informants' report about the existence or non-existence of a tie between each pair of alters (people whom s/he named in "name generator", alter-alter ties).

Informal after-talk. The last part was a short semi-structured interview that covered the issues of

the alumni role, the identity salience, experience of being the NaUKMA alumni, motivations to participate or not in the life of the university after graduation, and used or preferred communication channels to keep in touch with the NaUKMA. In addition, network-related questions were asked for deeper understanding of every informant's case.

All personal network data received from informants were anonymized: credentials of every informant and his/her alters are replaced by random letters and numbers. It is important to note that the attribute "whether lived together in the dormitory" was coded and input into Ucinet for Windows software package for SNA (Borgatti, Everett & Freeman, 2002) only for those respondents who used to live in the dormitory during studying.

Results of the NaUKMA Alumni Personal Network Survey

A full description of the approach to the data analysis in the pilot survey including the network hypothesis testing is outlined in Table 3 below. All calculations were performed in Ucinet for Windows software package for SNA. In addition, the graph visualizations were made via the NetDraw application to illustrate the network structure of components of "KMA people" and "non-KMA people" in the personal network of informants.

Density is one of the basic characteristics of the network showing how tightly the alters in one personal network are interconnected: if most of alters in the network are not tied to each other, the network has low density; if most of alters in the network are tied to each other, the overall density goes higher. Mathematically speaking, density is the ratio of the number of existing ties in the network to

Table 3. Approach in hypotheses check

Hypotheses	Approach or SNA tool for testing
<p>H1. The density of “KMA people” component in each personal network will be higher than the density of all other components in the network.</p> <p>IF “YES” There is a network effect inside the community of “KMA people”.</p> <p>IF “NO” There is lack of unity / co-operation among “KMA people”.</p>	<p>“By group” density for each network using the attribute “KMA people” as a grouping one (here grouping means diving every personal network into components by particular attribute).</p>
<p>H2. The overall density of the network will be higher for Group 2 (KMA alumni who works as faculty) than for the other groups.</p> <p>IF “YES” Those who stay in the NaUKMA as staff tend to merge their professional and private lives networks.</p> <p>IF “NO” Those who stay in the NaUKMA as staff tend to separate their professional and private lives maintaining regular contacts with a lot of people outside the KMA-people network.</p>	<p>Overall density for each ego-network, comparison of the average densities by Groups.</p>
<p>H3. The partition of “KMA people” in the network will be the biggest for the respondents from Group 2, and will continuingly decrease for respondents from Group 1 (active alumni) and Group 3 (non-involved alumni), respectively.</p> <p>IF “YES” Daily or regular interactions on matters with “KMA people” tend to widen the KMA-people components in ego-networks of the NaUKMA alumni.</p> <p>IF “NO” Daily or regular interactions on matters with “KMA people” have little or no effect on the size of “KMA people” component in ego-networks of the NaUKMA alumni.</p>	<p>The proportion of “KMA people” in every network, comparison the resulting numbers inside the Groups and across the Groups.</p>
<p>H4. Group 2 will contain student-years friends and acquaintances as colleagues.</p> <p>IF “YES” There is a network effect on alumni choice of staying in the NaUKMA as a staff after graduation.</p> <p>IF “NO” There is no/little network effect on alumni choice of staying in the NaUKMA as a staff after graduation.</p>	<p>The amount of those among alters in Group 2 who are also the NaUKMA alumni (“KMA people”), “colleagues” or “co-workers” in the NaUKMA context, and with whom the respondent maintain relations since being a student (“duration of relations”).</p>
<p>H5. Group 1 will have friends among the NaUKMA alumni who are also actively involved in the life of the NaUKMA.</p> <p>IF “YES” There is a possible network effect on alumni choice of being actively involved in the life of the NaUKMA after graduation.</p> <p>IF “NO” There is no or little network effect on alumni choice of being actively involved in the life of the NaUKMA after graduation.</p>	<p>The amount of those among alters in Group 1 who are also “KMA people” and members of alumni association, and/or co-organizers of events and projects in the NaUKMA, and/or workers of the modern NaUKMA etc.</p>

the number of all possible ties (everyone connected to everyone). Moreover, density may be calculated for different components of alters in the network, grouped by a particular attribute.

The highest network-density is observed in the network of R4, active alumni who is involved in arranging events in the NaUKMA on the regular basis. His network is presented in the picture below (Fig. 5): the grey colour marks alters who have an experience of studying in the NaUKMA, and the bigger size of the nodes corresponds to closer relations with the ego-actor. It is well seen from the visualization that a personal network of R4 is quite dense since there are very few nodes which are out of one big component around the ego. Moreover, even those nodes that are out of the major concentration of nodes belong to other interconnected components. The lowest overall network density is observed in the network of R8, while at the same time this person has a very dense “KMA people”

component. The network of R8 is divided in a few barely inter-connected components that can be noted in the graph visualization (Fig. 6).

H1: The density of the “KMA people” component in each personal network will be higher than the density of all other components in the network.

The majority of informants surveyed in the pilot study has rather dense components of “KMA people” with the density scores of the KMA component as 0.429 and higher (Table 4 below). Graph visualizations of three networks from every Group show the difference in connectedness of components of “KMA people” and “non-KMA people” (see Fig. 7–9).

H2: The overall density of the network will be higher for Group 2 (KMA alumni who works as faculty) than for the other groups.

The idea behind the hypothesis is that all alumni have some ties with the “KMA people,” but they start to add more and more people from

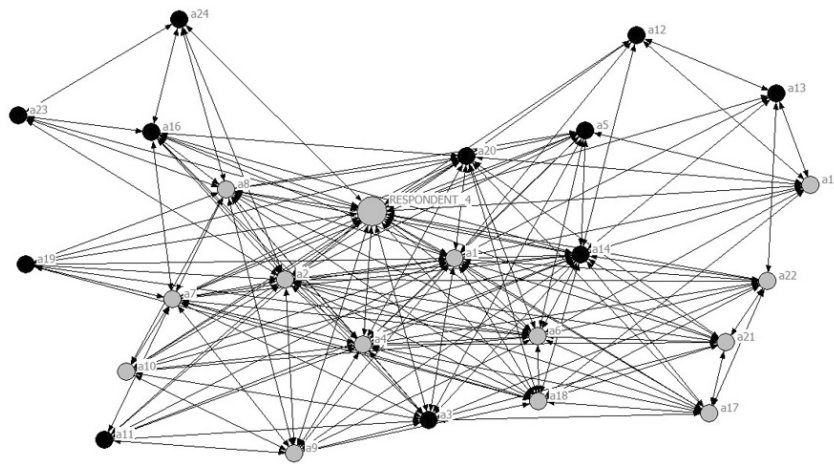


Fig. 5. Ego-network of respondent R4, Group 2. Note: grey colour – “KMA people” alters, black colour – “non-KMA people” alters

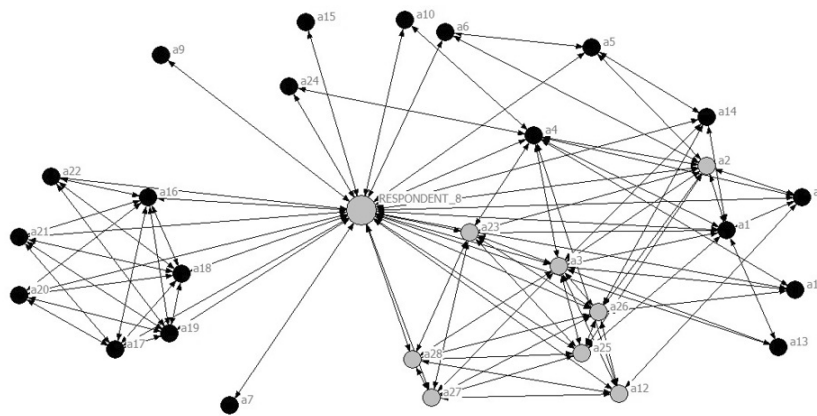


Fig. 6. Ego-network of respondent R8, Group 3. Note: grey colour – “KMA people” alters, black colour – “non-KMA people” alters

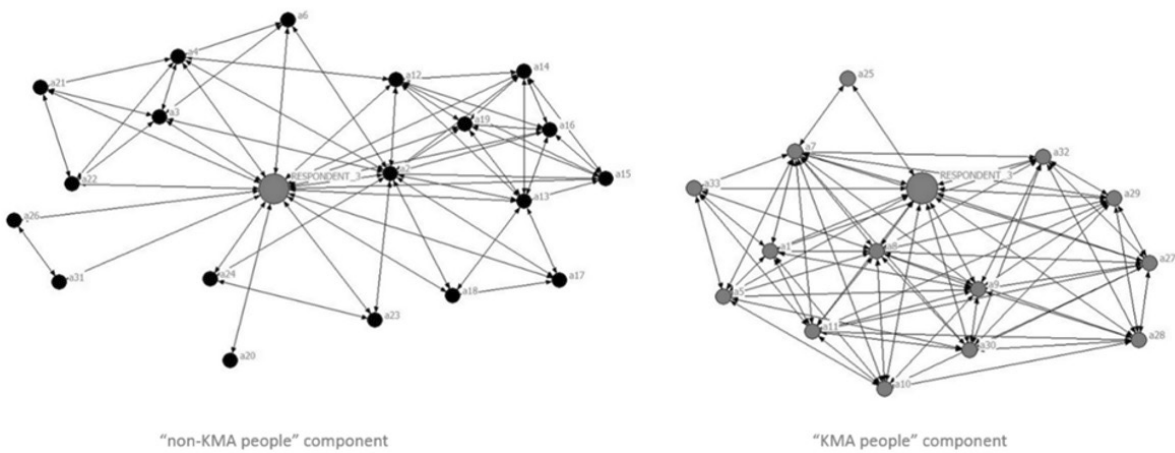


Fig. 7. “Non-KMA people” and “KMA people” components in the network of R3, Group 1 (active alumni)

different social contexts who are not related to the “KMA people” component after graduation. However, those alumni who stayed in the NaUKMA as employees might have an overlap of the private and professional ties. Informants from

Group 2 have overall densities ranging from 0.228 to 0.330, while overall densities of respondents from Group 1 are higher ranging from 0.273 to 0.527. Density scores of the networks of informants from Group 3 range from

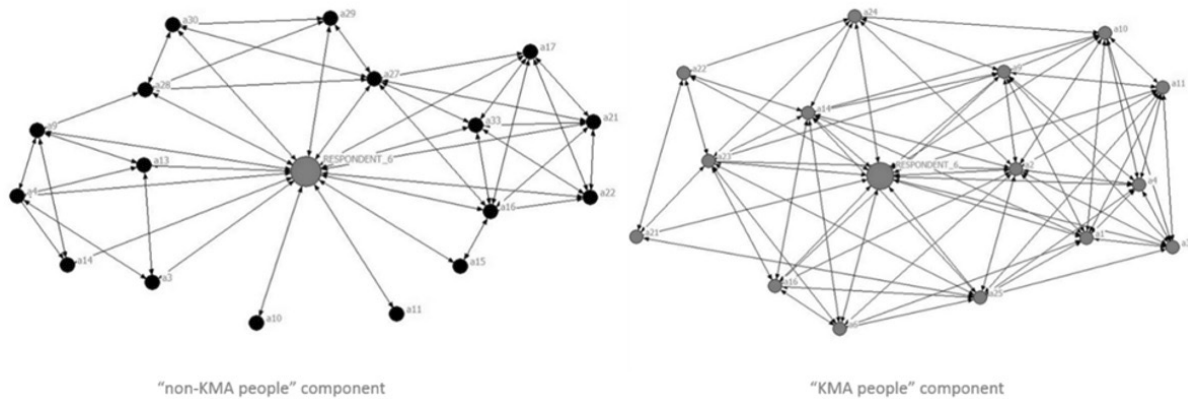


Fig. 8. “Non-KMA people” and “KMA people” components in the network of R7, Group 2 (faculty alumni)

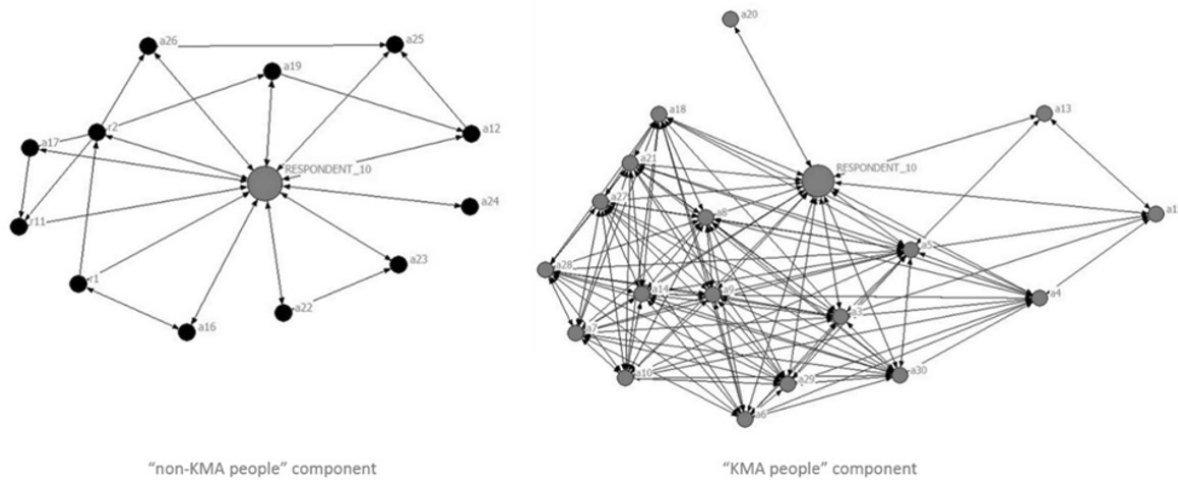


Fig. 9. “Non-KMA people” and “KMA people” components in the network of R10, Group 3 (inactive alumni)

0.177 to 0.307, which is similar to the results of Group 2 but still lower (see Table 4). The highest density scores are observed in the networks in Group 1 (active alumni).

H3: The partition of “KMA people” in the network will be the biggest for the respondents from Group 2, and will continually decrease for respondents from Group 1 (active alumni) and Group 3 (non-involved alumni), respectively.

There are informants in every Group whose networks include “KMA people” with about a half or even more than a half. Similarly, every Group has cases where 1/3 of the informant’s personal network consists of “KMA-people”. The average partition shows that Group 2 (alumni who became faculty) and Group 3 (inactive alumni) are similar in terms of higher partition, while Group 1 (active alumni) is left behind (see Table 5).

H4: In Group 2 ego-actors have student-years friends and acquaintances as colleagues in the NaUKMA.

Informants R5 and R7 in Group 2 (faculty alumni) have some very close friends (“closeness” coded with 8–10) among the NaUKMA colleagues with whom they have been acquainted since student years. Thus, the network effect on alumni choice of staying in the NaUKMA as staff or faculty after graduation is possible but needs statistical verification on a larger sample and comparison with non-faculty alumni (Groups 1 or 3).

H5: In Group 1 ego-actors have friends among the NaUKMA alumni who are also actively involved in the life of the NaUKMA.

For the hypothesis testing, the network composition of the informants of Group 1 were compared by the presence of alumni actively involved in the life of the NaUKMA who are also the informants’ friends (Table 7). Three out of four NaUKMA alumni who organizes something in the NaUKMA nowadays has at least one friend who is also involved in some kind of similar activity. The more regular and intensive the interaction is, the

Table 4. Density scores of ego-networks (overall and by components of “KMA” and “non-KMA” people)

	Respondent	Density	
		Overall	By groups
Group 1	R1	0.527	KMA component: 1* Non-KMA component: 0.565 Between components: 0.361 <i>*there were only three KMA-people in the network</i>
	R2	0.409	KMA component: 0.400 Non-KMA component: 0.550 Between components: 0.158
	R3	0.273	KMA component: 0.637 Non-KMA component: 0.246 Between components: 0.165
	R4	0.507	KMA component: 0.718 Non-KMA component: 0.309 Between components: 0.469
Group 2	R5	0.228	KMA component: 0.833 Non-KMA component: 0.190 Between components: 0.153
	R6	0.330	KMA component: 0.543 Non-KMA component: 0.222 Between components: 0.213
	R7	0.313	KMA component: 0.450 Non-KMA component: 0.210 Between components: 0.305
Group 3	R8	0.177	KMA component: 0.821 Non-KMA component: 0.142 Between components: 0.106
	R9	0.250	KMA component: 0.429 Non-KMA component: 0.250 Between components: 0.172
	R10	0.307	KMA component: 0.663 Non-KMA component: 0.121 Between components: 0.111

Table 5. The number of alters and the partition of “KMA people” in the respondents’ networks

	Informant	Amount of alters	Partition of “KMA people”	Group average for “KMA people” partition
Group 1	R1	Overall: 27 KMA people: 3	0.111	0.321
	R2	Overall: 24 KMA people: 5	0.208	
	R3	Overall: 33 KMA people: 14	0.424	
	R4	Overall: 24 KMA people: 13	0.541	
Group 2	R5	Overall: 30 KMA people: 9	0.300	0.461
	R6	Overall: 25 KMA people: 15	0.600	
	R7	Overall: 33 KMA people: 16	0.485	
Group 3	R8	Overall: 28 KMA people: 8	0.286	0.462
	R9	Overall: 16 KMA people: 8	0.500	
	R10	Overall: 30 KMA people: 18	0.600	

Table 6. Networks composition in Group 2

	Group 2 (faculty alumni)		
	R5	R6	R7
Colleagues from the NaUKMA:	5	9	12
Of them alumni:	4	5	7
Of them (alumni) acquainted since student years:	3	3	2

Table 7. Networks composition in Group 1

	Group 1 (active alumni)			
	R1	R2	R3	R4
Studied in KMA:	3	5	14	13
Of them is also are "involved alumni":	1	4	8	5
Of them have close (6+) relations:	1	0	8	4

Table 8. Summary on network hypotheses testing

Hypotheses	Proved
H1: The density of "KMA people" component in each personal network will be higher than the density of all other components in the network.	Yes
H2: The overall density of the network will be higher for the networks of respondents from Group 2 (the NaUKMA staff) than for the respondents of other groups.	No
H3: partition of "KMA people" in the network will be the biggest for the respondents from Group 2, and will continually decrease for respondents from Group 1 and Group 3, respectively.	No
H4: The respondents from Group 2 will have their student-years friends and acquaintances as colleagues.	Yes
H5: The respondents from Group 1 will have the NaUKMA alumni who are also actively involved in the life of the NaUKMA as friends.	Yes

closer are the friends in the network (are vice versa). Hence, the network effect on alumni choice of being actively involved in the life of the NaUKMA after graduation is possible but needs further statistical verification on a larger sample.

The results of hypotheses check are summarized in Table 8.

Conclusion

The results illustrate the notion of "KMA people" network that unites the NaUKMA alumni, keep the ties between some of them through time and have a potential influence on the character of alumni involvement in the life of the modern NaUKMA. Parts of ego networks that consist of the NaUKMA graduates in most cases are much more dense than the remaining parts of the network, which first of all, reveals the ease of information flow in these components in networks, and secondly, it proves that the "KMA people" components are often standalone parts of the network that are barely connected to other components. Moreover, the links that the alumni establish during the student years tend to transform into close relations that might have an impact on the character of the alumni involvement in the life of the modern NaUKMA.

As the pilot survey findings of the NaUKMA alumni demonstrate, there is the network effect of "KMA people". That means that people not just

graduate from the NaUKMA with a prestigious diploma. Rather, the NaUKMA alumni graduate being rooted in the NaUKMA via the ties with "KMA people" maintained after the graduation. And it is observed even for those alumni who reported to be not actively involved in the current activities of the NaUKMA as an institution. These alumni networks might be bigger or smaller, more or less diverse, but all of them are quite dense and present in the regular daily life of the respondents. The hypothesis about the bigger overall density of and the bigger "KMA people" component density in the networks of alumni who are the NaUKMA staff did not receive empirical evidence as no significant differences between "KMA people" components in the networks across the sample groups were found. The hypothesis confirmed that there is a network effect on the choice of alumni to involve into the life of the NaUKMA in a particular way, which means that ties of respondents with the "KMA people" in their networks most likely had an influence on the respondents' decision to stay in the NaUKMA as employees, organize events here, or vice versa, not attend the alma mater regularly.

As to the limitation of this pilot study, they are rather typical for the personal network research design. It is problematic to draw conclusions about the whole alumni community, since the ego-network design is focused on the individual cases and is not statistically representative of the universe of NaUKMA alumni.

The findings of this pilot study have practical implications for describing the structure of the NaUKMA alumni network and the mechanisms of its formation giving the empirical arguments for the

concepts of “Mohylianka spirit” popular among the “KMA people”. Also, the research suggests further assumption about the influence of these alumni networks on one’s life after the graduation.

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Annex A

Анкета для збору даних про взаємодію в особистій его-мережі

1. **Ім'я та прізвище** _____
2. **Стать:** а) жін. б) чол. в) _____
3. **Вік:** а) до 25 років б) 26–35 років в) 36–45 років г) 46+ років
4. **З якого Ви міста/селища/села (населений пункт і область) родом?** _____
5. **Чи проживали в могилянському гуртожитку під час навчання в НаУКМА? В який період навчання?**
 - Ні, не проживав/ла
 - Так, проживав/ла:
 - Харківське шосе (курс: _____)
 - Троєщина (курс: _____)
 - Ворзель (курс: _____)
 - Інший могилянський гуртожиток: _____ курс: _____

Генератор імен

Зараз я попрошу Вас записати імена людей, яких Ви знаєте. Це мають бути реальні живі люди, яких Ви можете розпізнати за виглядом та ім'ям і які, в свою чергу, можуть розпізнати Вас за виглядом та ім'ям та з ким Ви можете зв'язатися у разі потреби (наприклад, діти до 5–7 років або зірки Голівуду, які Вас не знають, не підходять :)

Ця частина опитника складається з чотирьох питань, кожне з яких спрямоване на те, щоб отримати вичерпний список людей, з якими Ви спілкуєтеся в певних контекстах. Люди у відповідях можуть «повторюватися»: наприклад, Ваш друг також є Вашим бізнес-партнером, а Ваша начальниця може бути людиною, через яку Ви підтримуєте зв'язок із Могилянкою.

Запишіть, будь ласка, **ім'я та перші дві літери прізвища** (або нікнейм тощо) таким чином, щоб надалі, використовуючи цей список, і Ви, і дослідниця розуміли, про кого конкретно говорять. Також це **НЕ обов'язково** мають бути могилянці – просто записуйте всіх тих людей з Вашого життя, які підходять під опис запитання.

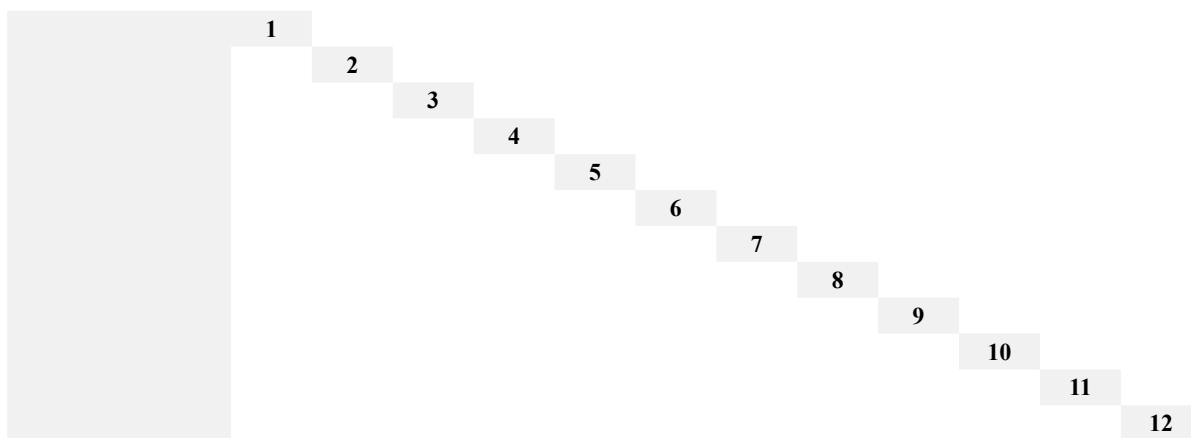
Не користуйтеся, будь ласка, телефонною книгою, списком друзів у фейсбуці абощо – пишіть «з голови».

1. Перелічіть, будь ласка, людей, з якими Ви спілкувалися **про особисті справи і/або разом проводили вільний час** протягом останніх двох місяців (це можуть бути друзі, родина, знайомі і т. д.).

Зв'язки між іменами (інтерпретатор зв'язків)

Остання частина інтерв'ю! Для кожної людини по вертикалі поставте «1» у відповідних клітинах, якщо вона/він знає людину по горизонталі. Аналогічно, якщо людина по вертикалі не знає людину по горизонталі, ставте «0».

Під твердженням «ці дві людини знайомі» мається на увазі Ваше припущення про те, що якщо вищезгадані особи випадково зустрінуться, то вони впізнають одна одну за виглядом і/або ім'ям.



Стеценко О. А., Костюченко Т. С.

МЕРЕЖІ ВИПУСКНИКІВ І ВИПУСКНИЦЬ УНІВЕРСИТЕТУ: КЕЙС НаУКМА

У статті запропоновано дослідницький дизайн для вивчення випускників і випускниць університету (аламні). Основний фокус дослідження – на персональних мережах аламні трьох типів, а саме: 1) тих, хто після випуску продовжує бути активно задіяним до діяльності рідного університету, 2) тих, хто починає викладати або працювати в університеті, і 3) тих, хто відвідує університет і події для аламні нерегулярно, переважно не бере активної участі в подіях університету (як-от Посвята, Конвокація тощо). Ми також порушуємо питання про мережеві ефекти від зв'язків, сформованих під час навчання, у прийнятті рішення про підтримку тісної взаємодії з університетом чи поверненні до нього для викладання або роботи.

Дослідження ґрунтується на теоретичних моделях МакДермона щодо формування ролівої ідентичності аламні ЗВО та Маєля і Ашфорта щодо факторів формування відчуття причетності і залучення аламні стосовно свого університету. Також у статті згадано праці Бурдьє та Брезіс про специфіку елітних університетів та спільнот їхніх випускників і випускниць як «закритих клубів» для обраних, де єдиним критерієм для встановлення зв'язку між двома особами є належність до аламні одного й того самого ЗВО. Авторки наводять окремі спроби дослідити спільноту НаУКМА з погляду корпоративної культури, «могилянського духу» і ролі зв'язків між аламні після випуску.

На основі теоретичного матеріалу і попередніх досліджень сформовано гіпотези щодо ступеня зв'язаності мережі могилянців, значення наявності зв'язків усередині університету для прийняття рішення про активну участь у подіях НаУКМА або про роботу в НаУКМА. Дизайн дослідження побудовано на підході вивчення персональних егоцентрованих мереж із використанням таких інструментів, як генератор і інтерпретатор імен та інтерпретатор зв'язків; загалом, на основі десяти пілотних інтерв'ю з інформант(к)ами, які представляють різні типи аламні (за типологією, розробленою авторками) з усіх шести факультетів НаУКМА та випуски 2006–2013 рр. Для перевірки гіпотез розраховано показник зв'язності (density) загалом для кожної персональної мережі і для підгруп «могилянців» і «немогилянців». Усі розрахунки здійснено в програмі Ucinet for Windows, візуалізацію графів мереж – у додатку Net Draw.

Ключові слова: випускники і випускниці університету (ЗВО), спільнота аламні, мережевий аналіз, персональні (егоцентровані) мережі.

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