LinkedIn: Online community research

Robert Dukarić
University of Madeira
Social Web Course 2009/2010 – Prof. Vassilis
robert.dukaric@gmail.com

ABSTRACT
In this paper, I will describe a research, which was made on LinkedIn online community. The main goal of this study was to show what kind of people are using this social networking website, what motivates them to use it, how much do they benefit from it, how much they contribute and in the end, how LinkedIn encourages newbie's to join. I also want to confirm two hypotheses. First of all, I want to confirm that "LinkedIn Users Have Higher Incomes" and show that use of LinkedIn is strongly correlated with personal income and profession. Secondly, I want to confirm the hypothesis "Employers use LinkedIn over Facebook and Twitter in hiring process".

Author Keywords
Guides, instructions, author's kit, conference publications.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION
An empirical study and questionnaires were made inside this social networking website in order to get as much as data possible for further analysis and conclusions. The questionnaire consists of 11 unequivocal questions and was send to 20 different groups from different kinds of profession. For instance, there were business-oriented groups like CISCO and Google Group, educational groups like Math, Math Education, Math culture group and groups created mostly with purpose of keeping contacts like Alumni klub UM FERI. All together, there were 80 questionnaires filled out from which some amazing conclusions were drawn. In the beginning of this report I will say few things about LinkedIn online community and describe some facts about its features. Then I will focus on the research, first on confirming two hypothesis and then on analyzing my own survey and questionnaires.

ABOUT LINKEDIN
LinkedIn is a free business social networking site that allows users who register to create a professional profile visible to others. Through the site, individuals can then maintain a list of known business contacts, known as Connections. LinkedIn users can also invite anyone to join their list of connections. LinkedIn offers an effective way by which people can develop an extensive list of contacts, as your network consists of your own connections, your connections' connections (2nd degree connections), as well as your 2nd degree's connections (called your 3rd degree connections). From this network, individuals can learn of and search for jobs, business opportunities, and people. LinkedIn also serves as an effective medium by which both employers and job seekers can review listed professional information about one another. LinkedIn follows strict privacy guidelines wherein all connections made are mutually confirmed and individuals only appear in the LinkedIn network with their explicit consent. Other LinkedIn features include paid accounts that offer more tools to find people, and "LinkedIn Answers" developed in January 2007. A free feature, "LinkedIn Answers" allows registered users to post business-related questions that anyone else can answer.

With more than 45 million users representing 150 industries around the world, LinkedIn is a fast-growing professional networking site that allows members to create business contacts, search for jobs, and find potential clients. Individuals have the ability to create their own professional profile that can be viewed by others in their network, and also view the profiles of their own contacts.
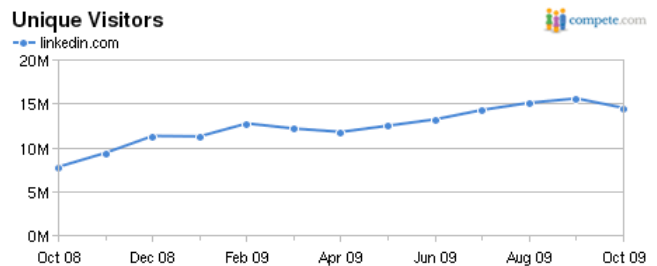

Figure 1. Traffic Analytics from October 2008 until October this year

LINKEDIN FEATURES

Groups
The searchable LinkedIn Groups feature allows users to establish new business relationships by joining alumni, industry, or professional and other relevant groups. LinkedIn groups can be created in any subjects and by any member of LinkedIn. Some groups are specialized groups dealing with a narrow domain or industry whereas others are very broad and generic in nature. These groups add an

unique element to the networking site in that it provides connections on a more personal basis. Professionals are more likely to want to connect with you online if they are somehow connected with you in life. These groups may include: alumni associations, 'greek' affiliations, professional societies (figure 1), sports team connections, etc. These groups also allow for professionals to post job openings or answer questions concerning a professional hardship. The connections made through LinkedIn Groups may be more beneficial than an unknown connection.

Figure 2. Example of four groups that I have joined in order to do my research

Profile

One of the most important parts of LinkedIn is your profile. That's what you use to connect with people in your network and your profile is how you get found on LinkedIn by potential employers. In addition, your LinkedIn profile can increase your visibility online and help you build your professional brand. For example, my LinkedIn profile is currently #4 on Google when you search for Robert Dukaric. That means anyone looking for information about me, will find everything they need to know at a glance - my skills, my employment information, my recommendations, etc.

That's why it's important to make sure that your LinkedIn profile is complete and detailed. In fact, you can consider your LinkedIn profile your online resume. It should have the same information that is on your resume and, if you're looking for a new job, you will want prospective employers to be able to review your credentials for employment, including your qualifications, your experience, and your skills.

Figure 3. Example my profile in LinkedIn

Contacts

When you join, you create a profile that summarizes your professional expertise and accomplishments. You can then form enduring connections by inviting trusted contacts to join LinkedIn and connect to you. Your network consists of your connections, your connections' connections, and the people they know, linking you to a vast number of qualified professionals and experts.

This list of connections can then be used in a number of ways:

- A contact network is built up consisting of their direct connections, the connections of each of their connections (termed second-degree connections) and also the connections of second-degree connections (termed third-degree connections). This can be used to gain an introduction to someone a person wishes to know through a mutual, trusted contact.

- It can then be used to find jobs, people and business opportunities recommended by someone in one's contact network.

- Employers can list jobs and search for potential candidates.

- Job seekers can review the profile of hiring managers and discover which of their existing contacts can introduce them.

Applications

In October, 2008, LinkedIn enabled an "applications platform" that allows other online services to be embedded within a member's profile page. For example, among the initial applications were an Amazon Reading List that allows LinkedIn members to display books they are reading and a Six Apart, WordPress and TypePad application that allows members to display their latest blog postings within their LinkedIn profile.
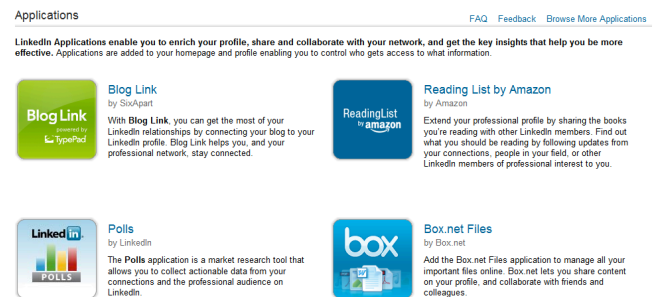

Figure 4. Four of the many applications available to use inside the LinkedIn

Jobs(searching, hiring)

LinkedIn allows users to search for jobs and also allows employers to hire new employees. Employers can list jobs and search for potential candidates, when on the other hand

job seekers can review the profile of hiring managers and discover which of their existing contacts can introduce them. For the usage of hiring process employers have to pay some fee per post, while searching for jobs is free.

Figure 5. Searching for a "engineer" job across United States

Anwsers

The feature LinkedIn Answers is similar to Google Answers or Yahoo! Answers, allows users to ask questions for the community to answer. This feature is free and the main differences from the latter two services are that questions are potentially more business-oriented, and the identity of the people asking and answering questions is known.

Figure 6. Example of a question and four answers using Answer feature

Companies

LinkedIn also allows users to research companies with which they may be interested in working. When typing the name of a given company in the search box, statistics about the company are provided. These may include the ratio of female to male employees, the percentage of the most common titles/positions held within the company, the location of the company's headquarters and offices, or a list of present, past, and former employees.

Figure 7. Example of a Slovenian company called "Mercator d.d."

Advertising

Advertising in LinkedIn is made possible with a new feature called DirectAds. This new product is designed specifically for users who would like a direct channel for marketing their business, product or service to other LinkedIn users. You can purchase text advertising through LinkedIn's sales team, and purchase ad space based on your targeting and budget parameters. Specify the audience that will see your text ad (there are 7 different options for this), and create your own message to be distributed across your target demographic on LinkedIn.

Prepare your submissions on a word processor or typesetter. Please note that page layout may change slightly depending upon the printer you have specified. For this document, printing to Adobe Acrobat PDF Writer was specified. In the resulting page layout, Figure 1 appears at the top of the left column on page 2, and Table 1 appears at the top of the right column on page 2. You may need to reposition the figures if your page layout or PDF-generation software is different.

Figure 8. DirectAds feature for advertisement purposes

LINKEDIN RESEARCH

Employers use LinkedIn over Facebook and Twitter in the hiring process

Three-quarters of hiring managers check LinkedIn to research the credentials of job candidates, according to a

Jump Start Social Media poll on how social media is being used in the hiring process [1]. Of the hiring managers surveyed, 75% use LinkedIn, 48% use Facebook, and 26% use Twitter to research candidates before making a job offer.

"Social media is not only a great networking tool, it's also a way for employers to perform reference checks on job candidates," said Veronica Fielding, president of Digital Brand Expressions and its social media service for consumers, Jump Start Social Media. "Because LinkedIn is the most professionally oriented of the three, it tends to attract hiring managers who are doing due diligence."

When it comes to sourcing job candidates, more hiring managers again prefer LinkedIn to Twitter and Facebook. Of the hiring managers surveyed, 66% of hiring managers visit LinkedIn, 23% visit Facebook and 16% use Twitter to find job candidates to fill openings (figure 9).

"While social media sites are ideal ways of gaining more information on job candidates, hiring managers generally use job boards and more traditional methods of finding suitable resumes," says Ms. Fielding. "Whether or not you are job hunting, you should be aware that your public profile is easily accessible so be sure to maintain a professional personal brand."
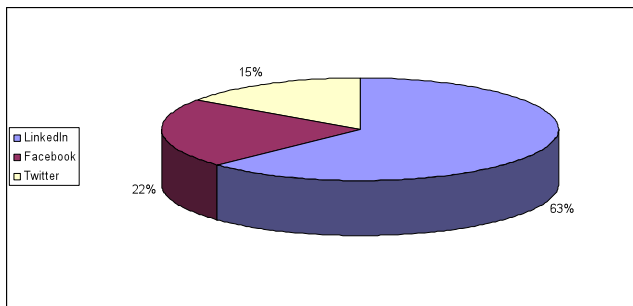

Figure 9. LinkedIn, Facebook and Twitter usage in hiring process

LinkedIn Users Have Higher Incomes
The study shows a strong correlation with personal income and profession and the use of LinkedIn. Users with personal incomes between $200,000 and $350,000 were seven times more likely than those below that level to have over 150 LinkedIn connections [2].

The survey found that executives make up about 28% of users, with an average income of $104,000; another 30% were "savvy networkers"--often identifying themselves as consultants, making an average of $93,000. More casual or newer users had incomes of $88,000 or lower.

Anderson Analytics polled 2,000 LinkedIn users and their 52,000 first-level connections in September 2008, using predictive analytics tools from software provider SPSS Inc.

The research identified four primary categories of the more than 30 million LinkedIn users worldwide, including "savvy networkers," or early adopters active in other networks; senior executives; "late adopters;" and those "exploring options" who are active in job seeking boards.

For the study, Anderson Analytics initially analyzed overall network statistics among 2,000 random 'seed' users--about half U.S. users and half international--as well as their 51,873 first-level connections. In order to segment users, Anderson Analytics looked at a sample of an additional 12,000 U.S. LinkedIn users and collected additional survey data from 793 of these.

"Savvy Networkers" make up about 9 million or 30% of total users. "Senior Executives" represent 8.4 million, or 28% of total users. "Late Adopters," meanwhile, constitute 6.6 million or 22% of users on LinkedIn, while those "Exploring Options" represent 6.1 million or 20% of total users (figure 10).

For the study, Anderson Analytics initially analyzed overall network statistics among 2,000 random 'seed' users--about half U.S. users and half international--as well as their 51,873 first-level connections. In order to segment users, Anderson Analytics looked at a sample of an additional 12,000 U.S. LinkedIn users and collected additional survey data from 793 of these.

In addition, a full 66% of LinkedIn users are recognized as decision makers or have influence in the purchase decisions at their companies, while users tended to be more senior in their companies.
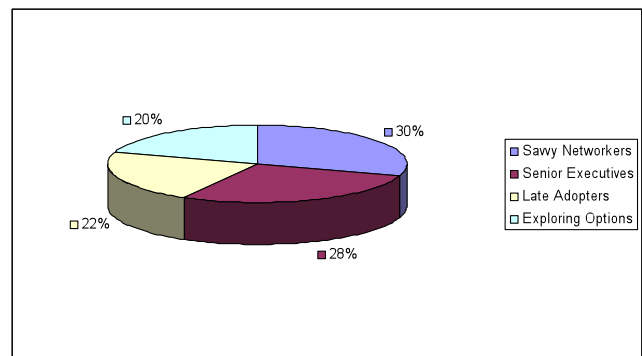

Figure 10. Status structure of LinkedIn users

Methodology
An empirical research method was conducted in order to discover what kind of people use LinkedIn (age, sex, profession, etc.), what motivates them to be an active member of this society, how long are they being part of it and how much did they contribute or gained from LinkedIn so far. In the end, I also wanted to discover, how does this online community encourage contribution and also how do they motivate new members to join.

To collect all the quantitative data, I made a questionaire that consists of 11 questions with a purpose to make a poll inside 20 groups that I have joined so far. Altogether, 84 people completed the questionnaires and more then 1000

data was collected, from which some amazing results could be drawn.

Results

From the graph below (figure 11) we can conclude, that LinkedIn is being used mostly by male population. More than 70% of users are male gender according to the questionnaires.
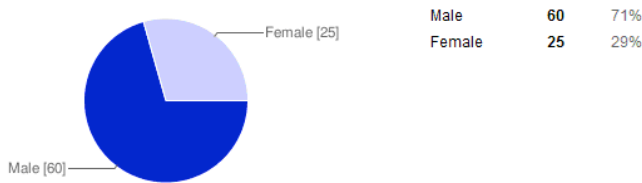

| Male | 60 | 71% |
| Female | 25 | 29% |

Figure 11. Your gender

The graph in figure 12 shows, that the majority of users are between 35-55 years old, what represents around 50% of users. The third of questioned users are between 25 and 35 and 15% of users are more than 55 years old, what is 10% more then users between 22 and 25 years old.
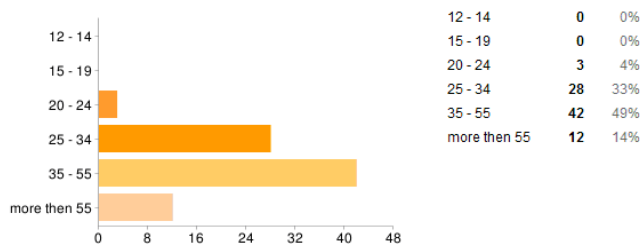

12 - 14	0	0%
15 - 19	0	0%
20 - 24	3	4%
25 - 34	28	33%
35 - 55	42	49%
more then 55	12	14%

Figure 12. Your age

From the graph in figure 13, we can conclude that most of the people using LinkedIn are employed and possibly use it for business purposes. The rest are unemployed (13%) and students (less then 5%). Preschool, primary school and high school kids seem not to use LinkedIn at all.
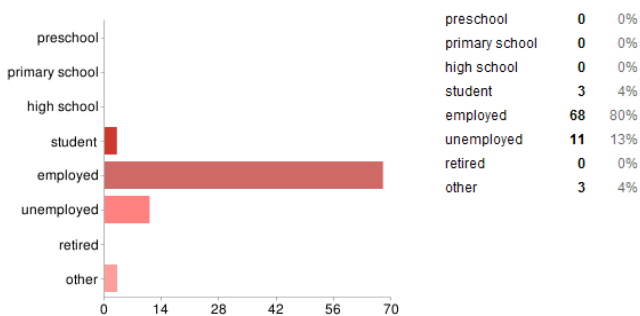

preschool	0	0%
primary school	0	0%
high school	0	0%
student	3	4%
employed	68	80%
unemployed	11	13%
retired	0	0%
other	3	4%

Figure 13. Current status

The graph in the figure 14 shows that users have been using this social network mostly from 1 until 2 years, what represents little less then third of all questioned user. 28% of users have been using it even more then for two years. The fifth of all users, have been using LinkedIn 1- 6 month,

and 6-12 months. Only 4% of users have been using it for less then a month.
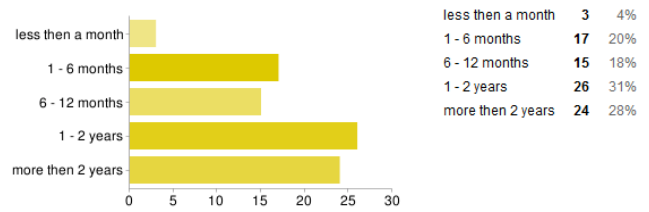

less then a month	3	4%
1 - 6 months	17	20%
6 - 12 months	15	18%
1 - 2 years	26	31%
more then 2 years	24	28%

Figure 14. How long have you been using LinkedIn online community?

From the graph below, we can conlude that most of the people consider themselves as average users, what represents little more then a half. On the other hand, little less then a quarter of users, consider themselves as experienced users. Expert and newbies represent only the fifth of all questioned users.
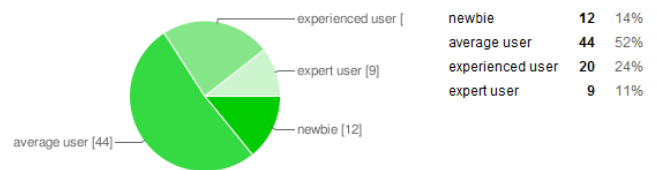

newbie	12	14%
average user	44	52%
experienced user	20	24%
expert user	9	11%

Figure 15. What kind of use do you consider yourself as?

The graph in figure 16 shows that users mostly use LinkedIn for business purposes, more than 80%. Little less people are using LinkedIn for keeping contacts. Half of the users are using it for social networking purposes and for searching jobs, when on the other hand, only 15% of people are looking for employees. Around third of the users are using it for searching companies and looking for help or answers. Apperently, only few people are using LinkedIn for pleasure or entertainment.
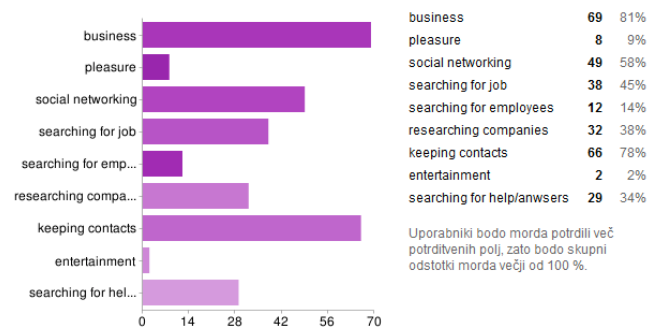

business	69	81%
pleasure	8	9%
social networking	49	58%
searching for job	38	45%
searching for employees	12	14%
researching companies	32	38%
keeping contacts	66	78%
entertainment	2	2%
searching for help/anwsers	29	34%

Uporabniki bodo morda potrdili več potrditvenih polj, zato bodo skupni odstotki morda večji od 100 %.

Figure 16. For what purposes do you use LinkedIn?

From the graph in the figure 17, we can conclude that LinkedIn is considered as a community of practice type of online community. Around 70% od questioned users think so.
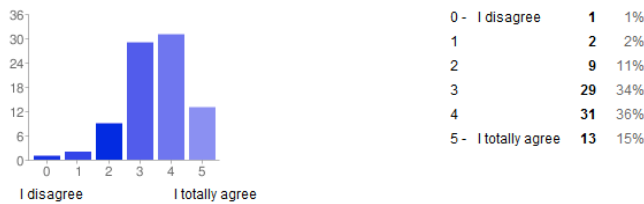
Figure 17. Do you believe that LinkedIn is a community of practice type of online community?

0 - I disagree	1	1%
1	2	2%
2	9	11%
3	29	34%
4	31	36%
5 - I totally agree	13	15%

The graph presented below (figure 18) concludes that most of the people are considered as medium contributors, who represent 50% of questioned users. The quarter of users contribute very little and only 15% of users contribute on regular basis.
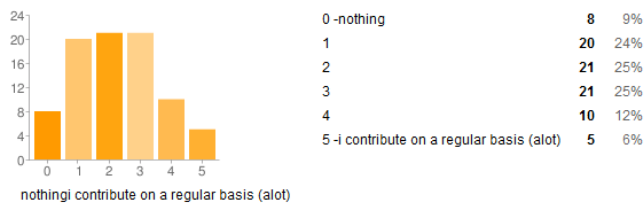

0 -nothing	8	9%
1	20	24%
2	21	25%
3	21	25%
4	10	12%
5 -i contribute on a regular basis (alot)	5	6%

Figure 18. How much do you believe you have contributed to this online community so far (number of posts, answers, helping others, etc.)?

From the graph presented in the figure 19, we can conclude that more than a quarter of questioned users have gained a lot from their online community. Another quarter think, that they didn't gain a lot.

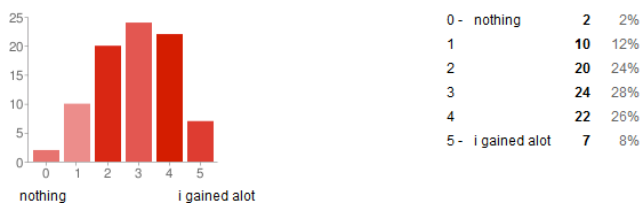|		
0 - nothing	2	2%
1	10	12%
2	20	24%
3	24	28%
4	22	26%
5 - i gained alot	7	8%

Figure 19. How much do you believe you have gained from this online community so far (receiving help, getting answers to your questions, getting useful replies to your posts, etc.)?

The graph presented below (figure 20) shows that fifth of the questioned users join the group because of the LinkedIn's ability of professional and business networking, 15% of new users joined because LinkedIn was recommended by their Co-workers, colleges or existing members and another 15% because of the LinkedIn's ability to maintain contacts. 10% of people joined, because they received an invite and another 10%, because of news and forum feature inside this online community.
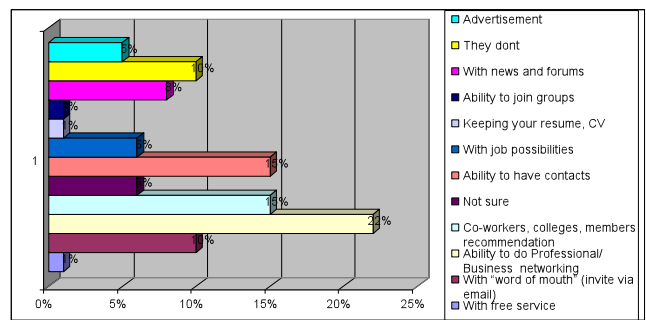

Figure 20. In your opinion, how does this online community encourage newbies to join? (you can write down your personal reasons)

From the graph shown in the figure 21 we can conclude, that participation encouragement is mostly provided with group discussions, which represent the quarter of questioned users. The fifth of all users believe that participation encouragement is accomplished with Answer feature. 15% of users think that this online community encourages contribution mostly with triggered email updates. And finally, only 10% of the users think, that contribution encouragement is made possible either with posting comments or open sharing information.
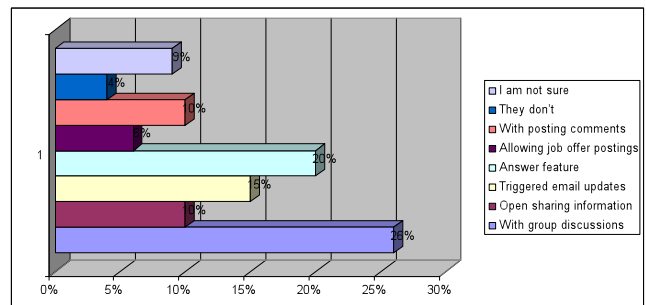

Figure 21. In your opinion, how does this online community encourages contribution? (you can write down your personal reasons)

CONCLUSION

In the end, I would like to outline the most important conclusions, which were made from my research, and point out two hypotheses, that were announced in the introduction. The first one "LinkedIn Users Have Higher Incomes" and the second one "Employers use LinkedIn over Facebook and Twitter in hiring process".

LinkedIn is mostly used by a male population. The main motivation for people to use this social network, is firstly business and secondly ability to maintain and keep contacts. More then 80% of people are employed. The next astonishing fact we can conclude from my study is that more then 65% of users are elder then 35 years. If we take the last two findings into consideration, we can say without any doubt, that LinkedIn is a business-oriented and serious online community mostly for adults. We can also conclude that LinkedIn encourages new members mostly because of

the ability to perform professional and business networking. And finally, it encourages contribution mostly with group discussions and Answer feature.

With the analysis and study performed to test first hypothesis confirms that three-quarters of hiring managers check LinkedIn to research the credentials of job candidates, what is much more then they do it on Twitter and Facebook together. The second research performed to test the other hypothesis shows a strong correlation with personal income and profession and the use of LinkedIn. Users with relatively high personal incomes were seven times more likely than those below that level.

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1. Employers Use LinkedIn Over Facebook and Twitter in the Hiring Process; June 9th, 2009 by Social Guy

2. Study: LinkedIn Users Have Higher Incomes by Gavin O'Malley, Tuesday, November 4, 2008