

## **Information Grounds of Students in Payame Noor University of Kermanshah, Iran**

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### **Abstract**

To meet their information needs, people use different tools and technologies which are called the individuals' information grounds. However, the literature on information grounds is limited to the United States; and there is no research comparing the information grounds of students in Iran so far. Therefore, the aim of the present study was to analyze the information grounds of students in Payame Noor University of Kermanshah. The total population of full-time students in Kermanshah Payame Noor University at the time of this study was about 6000. Using stratified random sampling technique, 361 students were selected to participate in this survey. A questionnaire survey was used to carry out the study. Findings revealed that the most common information grounds used were as follows: house of friends and relatives, university campus, and bus service. Also, the main reasons for using these information grounds are: presence of expert individuals, relaxed grounds, ease of communication with people in the ground, and enhancing the scope of personal knowledge and experience by exchanging information in that ground. The results indicated that there was a significant correlation between the socioeconomic status of students and type of information grounds. Moreover, it was found that there was a significant difference in male and female students' views regarding the reasons for using such grounds.

**Keywords:** Information behavior, information grounds, dimension of information grounds, informal information grounds.

### **Introduction**

Information technologies have affected all aspects of the human environment and people heavily depend on such technologies. Nowadays, everyone needs information to fulfill his/her affairs. We cannot properly decide in the absence of right and current information. All people in their daily activities should be informed about the quality and cost of many things such as consumer goods and services, health services, education and training facilities and so on. In fact they need to satisfy their curiosity in current affairs, and social and political events; or they may need some consultations regarding legal, financial, and other issues.

People use tools and technologies surrounding them to meet their information needs. In a simple word, these tools, technologies, and facilities constitute the individual's "information grounds". Information ground is an interesting term coined by Fisher (formerly Pettigrew, 1999). She believes that information ground is a "synergistic environment temporarily created when people come together for a singular purpose but from whose behavior emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information (Pettigrew 1999, p. 802).

In essence, information grounds can occur anywhere at any time, often unexpectedly, and while they form around an instrumental purpose (e.g., receiving a service or good), information sharing emerges as a byproduct of social interaction. As people visit each other and engage in social interactions, their conversation about life in general and about specific situations leads to both formal and informal information sharing on varied topics, in different directions (Counts & Fisher, 2008).

Information grounds are constantly evolving and their constituent elements are changing with information technology advancements. In an information ground, people receive information from various resources. Information grounds can be affected by different factors. "By understanding better the characteristics of 'information grounds' and the interactions among these characteristics, we may be able to develop social spaces in support of information flow and human interaction" (Fisher, Landry, & Naumer 2006, p.3). Accordingly, the aim of this study is to analyze the information grounds of students in Payame Noor University of Kermanshah (PNUK). Specifically, this survey tries to answer the following questions:

1. What are PNUK students' information grounds?
2. What are the dimensions (factors) of these information grounds? (What characteristics make an information ground important for acquiring information?)
3. How PNUK students exchange their information through information grounds?
4. What strategies can be taken for enhancing, enriching and optimizing information grounds of PNUK students?

Based on the above mentioned research questions, the following research hypotheses were proposed and tested:

1. There is a significant correlation between the socioeconomic status of students and their type of information grounds.
2. There is a significant difference in male and female students' views regarding their type of information grounds.
3. There is a significant difference in male and female students' views regarding their reasons for using such grounds.

"The notion of information grounds may be only newly proposed in the literature, but the phenomenon itself is not new. Linked strongly with people's natural inclination for constructing and sharing information interpersonally and thus socially, information grounds have existed since time immemorial and yet, little research, at least from an information behavior perspective, has explored their nature" (Fisher, Karen, & Naumer, 2005, p. 2)

Since its introduction in 1999, several studies have been conducted to identify and

investigate the information grounds of different populations (e.g. Fisher, et. al, 2005, 2006; Counts & Fisher, 2008; Bigdeli, Khojasteh Mehr & Sharifi, 2009; Sheibani, Jamali, & Asnafi, 2011; Bahrami, 2012). Based on studies, it can be concluded that most people have at least one information ground; people's top information grounds are places of worship, the workplace and activity groups (e.g. fitness clubs or playgrounds). Some information grounds qualify as hostage phenomena, i.e., settings in which one has little choice but to be present, e.g., medical offices, self-service laundries, bus stops, and store queues. While the studies theoretically supported information grounds, substantial work is required to understand the in-depth nature of information grounds" (Fisher, et. al, 2006).

Findings of this study would enable us to understand the current information grounds of PNUK students. From the study findings, several recommendations will be made to improve the information grounds of research population.

### Methodology

A questionnaire survey was used to carry out the study. The total population of full-time students of Kermanshah Payame Noor University at the time of the study was about 6000. Using stratified random sampling technique, 361 students were selected to participate in the study. The questionnaire developed by Sharifi (2007) was used in this survey. In the questionnaire, there are 23 information grounds used in three main categories: scientific category (including schools, conferences, workshops, defense sessions, libraries, and reading rooms), academic category (including computer centers of university, student associations, campus, university stadium and sport clubs, university mosque, university bus, and cafeterias and restaurants of university), and general category (including waiting area of airports and railways, different queues, house of friends and relatives, banks, parks, markets, barber shops and hair salons, café nets, and public transportation vehicles). Such a categorization is used in Sharifi (2007) and Sheibani *et al.* (2011).

The validity of the instrument was determined by a panel consisting of two university professors in Knowledge and Information Science and Psychology. Based on their suggestion some modifications made in the questionnaire. Questionnaire reliability is also tested by three approaches including alpha Cronbach, split-half, and Guttman; in all of approaches, the reliability coefficients were higher than %80. This suggests that the instrument is stable enough to be used in the study.

Of the total 361 questionnaires distributed, 290 questionnaires were filled out by the respondents (80.33% response rate) and sent back. Data analysis was accomplished using SPSS for Windows version 16. Missing values in any particular question were excluded from the statistical analysis. Considering the nature of this research, for data analysis, descriptive and inferential statistics were used.

### Results

#### - Main Information Grounds

The first question of the survey asked respondents to identify their information grounds. This resulted in a final list of 23 information grounds. Table 1 shows the list of information grounds in the order of priority as chosen by students.

Table 1

*The most frequently used information grounds*

Rank	Information ground	Mean
1	house of friends and relatives	15.06
2	university campus	14.35
3	university bus	14.20
4	public transportation vehicles	14.16
5	cafe nets	14.14
6	Libraries	13.66
7	Workshops	12.11
8	Parks	12.09
9	student associations	11.88
10	Schools (language school etc.)	11.82
11	university mosque	11.77
12	defense sessions	11.61
13	barber shops and hair salons	11.57
14	Markets	11.55
15	Banks	11.48
16	Conferences	11.38
17	different queues	11.36
18	computer center of university	11.00
19	reading rooms	10.71
20	university stadium and sport clubs	10.38
21	cafeterias and restaurants of university	10.31
22	waiting area of airports and railways	10.25
23	Dormitory	9.15

As depicted in Table 1, “house of friends and relatives” obtained the highest rank with the mean score of 15.06. “University campus” (14.35), and “university bus service” (14.20) followed the first item respectively. “Public transportation vehicles”, “cafe nets”, and “libraries” were other main information grounds which appeared at the top of list, respectively.

#### ***- Dimensions of information grounds***

The second question of the survey asked students to mention reasons they had for using their interested information grounds. Findings demonstrated that the three main reasons for using information grounds are “Presence of expert people in that ground”, “Quietness of that ground”, and “Easy communication in that ground” (Table 2).

Table 2

*Reasons for using information grounds*

Rank	Reason for using information ground	Mean
1	Presence of expert people in that ground	14.08
2	Quietness of that ground	13.61
3	Easy communication in that ground	13.42
4	enhancing knowledge and personal experience in that ground	13.24
5	The presence of same-sex people	13.03
6	Quick to contact/access	12.47
7	Communication of current information	12.35
8	Neutral, not biased	12.25
9	Communication of artistic and cultural information in that ground	12.24
10	Diversity of that ground (there are many kinds of people and opinions)	12.23
11	Decision making based on information received from that ground	12.10
12	To address issues related to work and personal problems through information received	12.00
13	Trust in information exchanged in that ground	11.94
14	The large number of people present in that ground	11.92
15	Views of the people in that environment (what others think?)	11.76
16	Communication of social and economic information on that ground	11.69
17	Physical quality of that ground (e.g. lighting, furniture, temperature ...)	11.46
18	Relevance of communicated information to work issue	11.29
19	Instability of the information ground	10.95
20	Lack of access to official information resources such as books etc.	10.86
21	Lack of time to search for information from official sources such as the library	10.67
22	Regular and frequent use of that ground (e.g. daily attendance at cafeterias and restaurant of university)	10.40
23	Spending much time in that information ground (e.g. queues)	10.06

***- Types of Information Exchange***

Results indicated that most students prefer to exchange information via “verbal communication”. “SMS (Short Message Service)” and “phone call” are other prevalent types of communication (channels) among PNUK students (Figure 1).

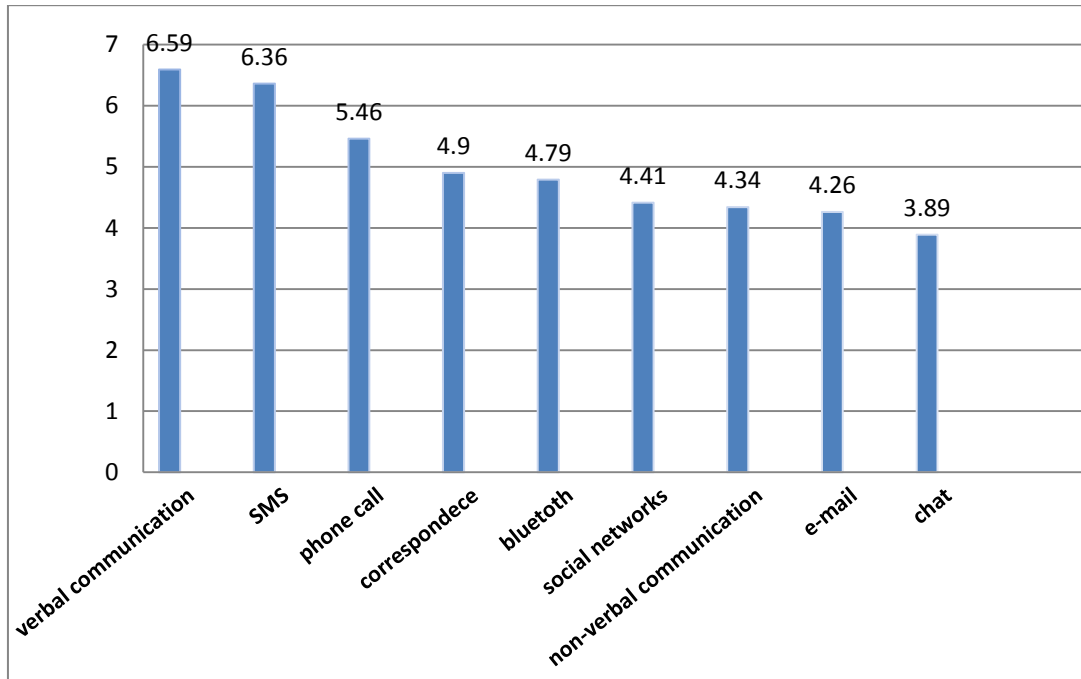


Figure 1. Types of communication in information grounds

#### - Strategies for Optimizing Information Grounds

The last question of the survey focuses on the strategies that can be taken for enhancing, enriching and optimizing information grounds by PNUK students. As it is shown in Table 3, “Increasing the number of computers in the Internet Center” (4.96) is the highest priority among students in regard to information grounds enhancement. “Enhancing Internet access” (4.90), and “free Internet access in different areas” (4.87) are other main strategies that can be taken for optimizing information grounds of PNUK students. This means that the most preferred strategies belong to areas outside the library’s physical building.

Table 3

*Strategies for optimizing information grounds*

Rank		Mean
1	Increasing the number of computers in the Internet Center	4.96
2	Enhancing Internet access	4.90
3	Free Internet access in different areas	4.87
4	Increase the number of books in the library	4.56
5	Development of computer and Internet centers in student dormitories	4.37
6	Extending working hours of reading rooms	4.35
7	Holding workshops for library staff	4.00
8	Putting book shelves in different information grounds (e.g. bus stop)	3.99

#### Testing the Research Hypotheses

##### - Socioeconomic status of students and the type of information grounds

Table 4 shows the correlation between the socioeconomic status of students and the type

of information grounds they used. From Table 4, it could be realized that the predictor variables have a significant correlation with type of information grounds used.

Table 4

*The correlation between the socioeconomic status and the type of information grounds*

Criterion variable	Test	Predictor variable	Correlation coefficient	Sig. level
Socioeconomic	Spearman	Scientific info. ground	0.421	$\leq 0.001$
		Academic info. ground	0.41	$\leq 0.001$
		General info. ground	0.323	$\leq 0.001$

According to this table, the correlation between socioeconomic status and the type of information grounds is statistically significant ( $r= 0.001$ ). In other words, the socioeconomic status can predict the type of information ground.

#### **- Male and female students' views regarding the type of information grounds**

Table 5 shows the results of MANOVA about the viewpoints of male and female students regarding the category of information grounds. It can be inferred from the table that there is a significant difference in male and female students' views regarding the category of information grounds (scientific, academic, and general).

Table 5

*Viewpoints of male and female students regarding the category of information grounds*

Effect	Test	Value	F	Hypothesis degrees of freedom	Error degrees of freedom	P level of sig.
Group	Pillai's trace	0.19	19.91	3	244	<0.001
	Wilks'lambda	0.8	19.91	3	244	<0.001
	Hotelling's trace	0.24	19.91	3	244	<0.001
	Roy's largest root	0.24	19.91	3	244	<0.001

One Way ANOVA was run to realize this significant difference and its results are shown in Table.

Table 6

*Viewpoints of male and female students regarding the specific category of information grounds*

Source of changes	Dependent variable	Sum	d.f.	Mean	F	P level of sig.
Group	Scientific inf. ground	9791.7	1	9791.7	38.7	<0.001
	Academic inf. ground	145.17	1	145.17	0.17	0.67
	General inf. ground	8004.75	1	8004.75	42.73	<0.001

1. There is a significant difference in male and female students' views regarding the scientific category of information grounds ( $F= 38.7$ ,  $P<0.001$ ). Average score for the scientific information ground of males ( $\bar{x} = 48.2$ ) is higher than that of females ( $\bar{x} = 35.63$ ).

2. There is not a significant difference in male and female students' views regarding the

academic category of information grounds ( $P > 0.05$ ).

3. There is a significant difference in male and female students' views regarding the general category of information grounds ( $F = 42.73$ ,  $P < 0.001$ ). Average score for the general information ground of females ( $\bar{x} = 35.37$ ) is higher than that of males ( $\bar{x} = 24.01$ ).

#### **- Male and female students' views regarding the reasons for using such grounds**

Table 7 illustrates the results of MANOVA about the viewpoints of male and female students regarding the reason for using information grounds, and it reveals that there is a significant difference in male and female students' views regarding at least one of the reasons for using such grounds (enhancing knowledge and personal experience in this information ground, diversity of information ground, informality of information ground).

Table 7

*Viewpoints of male and female students regarding the reason for using information grounds*

Effect	Test	Value	F	Hypothesis degrees of freedom	Error degrees of freedom	p level of sig.
Group	Pillai's trace	0.144	16.013	3	286	<0.001
	Wilks' lambda	0.856	16.013	3	286	<0.001
	Hotelling's trace	0.168	16.013	3	286	<0.001
	Roy's largest root	0.168	16.013	3	286	<0.001

To realize this significant difference, One Way ANOVA was run, and its results are shown in Table 8.

Table 8

*Viewpoints of male and female students regarding the specific reason for using an information ground*

Source of changes	Dependent variable	Sum	d.f.	Mean	F	p level of sig.
Group	enhancing knowledge and personal experience	9791.7	1	1.79	8.8	<0.005
	diversity of information ground	145.17	1	6.81	0.484	0.487
	informality of information ground	8004.75	1	4977.77	15.85	<0.001

From this table, it could be realized that:

- There is a significant difference in male and female students' views regarding the "enhancing knowledge and personal experience" in this information ground ( $F = 8.8$ ,  $p < 0.001$ ). Average score for "enhancing knowledge and personal experience" among males ( $\bar{x} = 6.38$ ) is higher than that of females ( $\bar{x} = 6.21$ ).
- There is not a significant difference in male and female students' views regarding the "diversity of information ground" ( $P < 0.05$ ).
- There is a significant difference in male and female students' views regarding the



“informality of information ground” ( $F= 15.85, p<0.001$ ). Average score for “informality of information ground” among females ( $\bar{x} = 12.80$ ) is higher than that of males ( $\bar{x} = 8.40$ ).

### Discussion and Conclusion

In this research, we sought to take an in-depth look at information grounds of students in Payame Noor University of Kermanshah. According to the findings of current study, the main information grounds of students are: “house of friends and relatives”, “university campus”, “university bus service”, and “public transportation vehicles”. Based on these results and findings of Fisher *et al.* (2007), Sharifi (2007), Sheibani *et al.* (2011), and Bahrami (2012), it can be mentioned that there are similarities between information grounds of PNUK students, and students of American universities. It seems that choosing and using an information ground can be influenced by availability and accessibility of that information ground. More specifically, PNUK students, Chamran University staff, and American universities’ students prefer information grounds they deal with every day. According to Granovetter’s “the strength of weak ties” (1983), it can be argued that PNUK students, like Chamran University staff, rely more on their strong relationships (friends, classmates, relatives) as sources of information; and they don’t rely on information exchange in “weak ties”, places such as waiting rooms and airport terminals, banks and hairdressers. Moreover, it should be stated that the populations surveyed by Fisher *et al.* (2004; 2005) relied on information exchange in “weak ties” in which people can find new casual friends. This may be due to cultural differences between Iranian and American societies.

The results of the present study demonstrated that the main reasons for using information grounds are: “Presence of experts in that ground”, “Quietness of that ground”, “Easy communication in that ground”, and “enhancing knowledge and personal experience in that ground”. Based on the findings from the college student study as well as by drawing upon relevant literature, Fisher *et al.* (2006) grouped information grounds under three headings: people-related, place-related, and information-related. It seems that findings of current study confirm the above-mentioned categorization. Reasons like “easy communication” and “enhancing knowledge and personal experience” belong to the people-related group; “presence of expert people” can be located in information-related group; and “quietness of information ground” stands in the place-related group. Therefore, the results show that **“people, information, and place”** are three key factors which have an impact on information ground. However, findings indicate that **“people”** and **“information”** play a more crucial role than **“place”**; and this section of findings is in line with the findings of Sharifi (2007), Sheibani *et al.* (2011), and Bahrami (2012).

Generally, according to the findings of the present study, it can be mentioned that information grounds are: environments in which PNUK students can increase their knowledge and personal experiences. This statement is true because, in such environments, one can easily communicate with the people around and exchange and update his/her information.

Findings revealed that PNUK students use “verbal communication” as their first priority in information exchange. This part of the findings is quite justifiable, since the “verbal communication” requires no special equipment and can be done readily, and most of the daily communications are devoted to it. On the other hand, “e-mail” and “chat” gained the lowest

priority among other types of information exchange. It seems that the modern information and communication media have not completely replaced face-to-face communication.

Findings revealed that by “increasing the number of computers in the Internet center”, “enhancing Internet access”, and “free Internet access in different areas (e.g. stadiums, and etc.)”, the information grounds of PNUK students can be optimized. This means that the most preferred strategies belong to areas outside the library’s physical building. Since the next priority of students is to “increase the number of books in the library”, it can be concluded that after the Internet, books play a crucial role in enhancing, enriching, and optimizing the information grounds of PNUK students.

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