

Article

# Motives for Instagram Use and Topics of Interest among Young Adults

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Received: 8 May 2018; Accepted: 7 August 2018; Published: 9 August 2018



**Abstract:** Instagram is currently the most popular social media app among young people around the world. More than 70% of people between the ages of 12 and 24 are Instagram users. The research framework of this study was constructed based on smartphone addiction and the uses and gratifications theory. We used 27 question items divided into five factors, namely social interaction, documentation, diversion, self-promotion, and creativity, to investigate the motives for Instagram use and topics of interest among university students in Taiwan. A total of 307 valid questionnaires were obtained. The results revealed that on the whole, the motives for Instagram use were mostly to look at posts, particularly involving social interaction and diversion motives. The level of agreement expressed toward motives for creating posts was lower. Gender, professional training background, and level of addiction to Instagram all exert influence on motives for Instagram use. Over half of the students majoring in design followed artisans and celebrities (including designers), and female students noticed ads on Instagram more than male students did.

**Keywords:** cyber-psychology; Instagram; motive of usage; social interaction; social media; visual commerce

## 1. Introduction

A global survey on internet users in 2017 reported that the number of smartphone users has been growing at an astonishing rate. At present, over half of the world's population own smartphones [1]. The general public has become extremely dependent on smartphones. The average amount of time that an adult spent on his or her smartphone per day soared from 15 min in 2008 to 2 h and 48 min in 2015 [2]. Approximately 8 out of 10 teenagers check their phone at least once every hour [3]. Furthermore, a high 40% of teenagers have some form of internet addiction [4]. Teenagers, in particular, are heavily dependent on mobile devices [5]. Research has shown that individuals with internet addiction and various other compulsions tend to spend more time on their mobile devices [6–8]. However, the amount of time spent using the internet alone is not enough to determine whether an individual has internet addiction [9]; this requires more complex diagnosis and testing.

Among the adults that use their smartphones for nearly three hours every day, 59% indicate that they are very reliant on social media, over half of them accessing social media sites at least once every hour [2]. They go on line constantly not only because their friends are using these social media sites but because they are also attracted to the design of these social media platforms. In the US, 90% of the teenagers are users of Facebook, Snapchat, or Instagram [10]. Similarly, an average individual in Taiwan has four social media accounts [11]. Clearly, we can see the stickiness of social media and the resulting ample business opportunities [12].

Launched in October of 2010, Instagram is combination of the words “instant” and “telegram”. With numerous built-in photo filters to create quality visual effects, Instagram is a social media app

that uses images as the means of communication. Two years after its launch, the number of Instagram users reached three hundred million. Facebook therefore acquired Instagram in 2012 for USD 1 billion. In June of 2017, the number of active users on Facebook, the leader of social media, surpassed two billion, which means that over a quarter of the world's population are Facebook users. However, usage among younger people is significantly declining. In contrast, the number of Instagram users in the US during the same time period increased by 23.8%, most of them are young people, and it is predicted to reach 8.5 million in 2018 [13]. Instagram has become an important social networking platform for teenagers. Visualized communication has become the most favored way of communication for modern youths. At present Instagram has more than 700 million monthly active users (MAUs), which is a significant milestone for social media apps. In the US, nearly 60% of Instagram users are between the ages of 18 and 29, and the majority are female [14]. In terms of place of residence, more than 80% of Instagram users live outside of the US, and user numbers are growing exceedingly quickly in Asia and South America [15].

A background survey of Instagram users in Taiwan revealed that female users constitute the majority and are also more active. Furthermore, most users have a college education or higher [16]. In Taiwan, significantly more individuals from junior high school students at the age of 12 to fresh university graduates under the age of 24 visit Instagram than individuals from other age group. Moreover, 71% of young people between the ages of 18 and 24 are Instagram users [11]. This shows that Instagram is extremely popular among young people in Taiwan. On Instagram, users can currently share posts in the form of images, videos, carousels, and stories [17]. In addition to user posts, an increasing number of commercial brands aimed at young individuals are placing ads on Instagram via Facebook. Pricing is adjusted in real-time, ads are displayed to audiences, and services are offered in real-time. The image, video, carousel, and stories formats are also available for Instagram ads. Stories ads can be 2.5 s to 60 s long, whereas carousel ads comprise three to five images that can be scrolled left and right, which adds to the fun [18].

Without a doubt, Instagram has become the most favored social media app of young individuals today. In the past two years, researchers in social and behavioral sciences in American and European countries have been comparing the motivations behind Instagram usage in American and European students from the perspectives of cross-cultural differences or behavioral addiction. Such research is less common in Asia. This study investigated whether gender and University Major influences the motives for Instagram use and topics of interest for university students in Taiwan to provide future reference for personalized advertising on Instagram.

## 2. Theoretical Background

### 2.1. Social Interaction with Uses and Gratifications Theory

An exceedingly high proportion of modern people have internet addiction. Approximately 77% of young people between the ages of 18 and 24 indicate that they pick up and check their smartphones before doing anything else [19]. comScore Media Metrix observed the total digital population in Taiwan to be 14.385 million people in 2016. A large chunk of this population are heavy internet users. In 2016, over half of Taiwan's population accessed the internet via mobile devices every month. Thus, Taiwan is a country with an extremely high mobile device usage [20], and most usage involves posting on and browsing through social media. Social media is a system that operates on likes, social recognition, and social affirmation, and its primary operational meaning is based on the numbers of views and followers [5]. Messages on Instagram undergo artificial processing and editing. Whether Instagram users are aware of their own behavior and what motivates them to use and even become addicted to Instagram are issues worth investigating.

The social function of Instagram is that it enables users to contact and interact with society or relieve anxiety and tension. In other words, Instagram provides evidence for the uses and gratifications theory. The primary research methods involving this theory include surveys, experiments, and

psychological tests; the contents and meaning that it explores include motive, choice behavior, and reactions [21]. Nightingale proposed the concept of audience features, among which there are two classical features: Whether they receive media alone or interact with others, audiences are contextualized by the location of dissemination and other features [22]; when audiences become submerged in the scenario, they can engage in a synchronous manner and offer responses. Eastman once described audience research as a stalemate between two sides: the media industry, which seeks to control audience behavior, and the audience, which aim to satisfy their own media needs [23]. In other words, Instagram users also meet their own needs via the usage process. Jensen & Rosengren divided audience research into five major categories: effects, uses and gratifications, literary criticism, cultural study, and reception analysis [24].

The gratification is a mental state rather than a type of behavior and is the psychological satisfaction that users derive from their experience of media usage. Evaluating the uses and gratifications is based on user attitude toward the media, which varies with personal beliefs, values, and preferences [25]. Studies in the past have allowed users to define their own behavior [26]. The core motive behind media usage is to solve various social needs or enable self-adjustment and relaxation in individual usage [27]. Users are considered active and motivated media users who can control their own usage experience. Thus, media research in recent years has focused on understanding the source of motivation [28]. The typical needs in the uses and gratifications theory are broad forms of motivation, including information, socialization, entertainment, and escape [29]. Motivation is an important indicator in the prediction of human behavior, and motivation is the foundation of the uses and gratifications theory. Different motives will result in different media usage behavior, online consumption behavior, and attentional behavior, all of which come from the uses and gratifications theory. The satisfaction of certain motives during the process of media usage evokes certain responses, and the degree of satisfaction varies depending on the motive. Thus, the behavior produced will naturally vary as well. We therefore hypothesized that users have varying preferences with regard to Instagram that are associated with their different expectations of the social media and the sense of satisfaction that they seek to gain through Instagram.

## 2.2. Motives for Instagram Usage

Testing psychological effects on media users requires the description of actual situations, and finding a universal explanation is fairly difficult. For these reasons, researchers often use media side factors to explain the psychological effects on internet and new media users [30–33]. Mull & Lee examined the uses and gratifications theory with social media [34], applied it to the motives for Pinterest usage, and identified five primary motives: fashion, creative projects, virtual exploration, entertainment, and organization. Emphasizing visual presentation as much as Pinterest does, Instagram is extremely suitable for research comparing and describing usage motives [35,36].

Recent studies on motives for Instagram use have found that the majority of user posts on Instagram are selfies. Whereas the primary motive for Facebook posts is to establish relationships with others, Instagram is more for personal use [37]. Most people devote a lot of time and focus to Instagram; users first take numerous pictures before uploading the most important picture to get praise and likes [38,39]. Social media users tend to feel good about themselves and are very sensitive to criticism [5]. Instagram utilizes the general need to pursue social validation, which gives users a unique sense of satisfaction [40].

## 2.3. Influence of Gender and Major on Motives for Instagram Use

Research suggests that University Major preferences vary substantially with gender. Men tend to choose more object-oriented majors such as engineering, physics, and computer science. In contrast, women gravitate toward people-oriented majors such as education, nursing, art, and literature [41,42]. Durak & Saritepeci [43] proposed that stress from the environment influences the motives and behaviors of each gender, which in turn influences cognitive style [44]. From the perspective of

visual cognitive tendencies, men describe themselves as being inclined towards spatial imagery, whereas women define themselves as being inclined towards object imagery. In other words, women seem to prioritize the detailed appearances and colors of the images themselves, rather than the location and spatial conversion of images [45]. This is likely also true of Instagram, which enables communication via visual images.

Graf & Kinshuk [46] used four dimensions, namely active/reflective, sensing/intuitive, visual/verbal, and sequential/global, to express the characteristics of each learner and found mutual influence between learning style and working memory capacity. Learners with smaller working memory capacity prefer active, sensing, and visual learning styles, while those with higher working memory capacity are inclined toward reflective, intuitive, and sequential learning modes. Piaw [44] proved that differences of learning style exist in gender and controlled the variables, that is, ethnicity and academic major, to explore the influences on creative thinking ability. The results revealed a significant correlation between gender and creative thinking ability; furthermore, right-brain dominance was found to be connected to learning style and creative thinking ability [47,48]. In conclusion, students that think with their right brain are more creative than those that think with their left brain, and their academic major exerts a positive impact on their overall creative thinking ability [44].

Research on the relationship between internet searches and personal cognitive processes found that thinking style influences internet search motives, including the individual's understanding of the search task, webpage experience, skill in operating search engines, and amount of attention devoted to the search task [49]. The University Major also makes a difference in psychology and thinking styles [50–52]. Generally speaking, students that major in art, literature, education, nursing, communication, and law think with their right brain, whereas those majoring in management, commerce, engineering, and science think with their left brain [52]. Furthermore, thinking patterns are correlated to academic expertise and domain. Humanities majors tend to adopt nonlinear thinking styles, which commerce, science, and engineering majors prefer linear thinking [51]. Based on the literature above, we infer that gender, knowledge, and interests all influence the motives and behavior of internet use. University Majors also influence thinking, and brain dominance affects not only thinking but also internet usage behavior. The primary research questions of this study were as follows:

RQ1: Do motives for Instagram use and topics of interest vary with gender?

RQ2: Do motives for Instagram use and topics of interest vary with University Major?

RQ3: Do motives for Instagram use vary with amount of Instagram use?

### 3. Methods

We administered an online questionnaire to understand the motives and topics of interest of Instagram users. Analysis of variance was conducted using the factors of gender, major, and the average amount of time spent on Instagram per day.

#### 3.1. Questionnaire Design for Motives for Instagram Use

For the questionnaire design, we referred to the five categories of motives for social media use employed by [53]: social interaction, documentation, diversion, self-promotion, and creativity. Factor 1: Social interaction was first proposed by [54] and is defined as “watching what others are doing”. It contained six items, three of them being “To follow my friends”, “To see updates of my friends”, and “To see the updates of those I follow” [35]. In addition to these three question items, we observed the Instagram use habits of university students and added “To interact with others (Comment & Like)”, “To prevent social isolation”, and “To find something new (including people, restaurants, and attractions)”.

Factor 2: Documentation is a motive unique to Instagram [35,55]. It contained five items (e.g., “To remember special events”, “To commemorate an event”, “To remember something important to

myself", "To depict my life through photos") [35,53]. In addition to these four question items, we also added "To record my emotional state (innermost feelings)". Factor 3: Diversion was proposed by [56] and defined as "escape from boredom or problems, and emotional release". It contained five items (e.g., "To relax", "To avoid loneliness", "To escape from reality") [35]. We further added "To kill time" and "To escape awkward situations (pretending to be busy or in traffic)".

Factor 4: Self-Promotion is a feeling [35,57]; psychologists posit that people promote themselves using personalized new technology to pursue fame and feel valued [58]. It contained five items (e.g., "To become popular", "To show off", "To self-promote myself") [53]. We further added "To gain attention from followers (comments and likes)". Pets make most people happy, and many people are willing to share pictures of their beloved pets. Instagram has become a platform for pet lovers, where many people show off their pets (mainly cats and dogs) in various environments [59]. Thus, we also added "To show off my pet". Factor 5: It is creativity. Mull & Lee [34] found that creativity is one of the motives for Pinterest use. We define creativity as "the ability to cultivate and express" It contained six items, including "To create art" and "To show off my photography skills", which were proposed by [35]. As some of the participants of this study were design majors, we added four other question items: "To appreciate different lifestyles and photography works", "To seek creative inspiration (such as strange and unique things and cultural and creative designs)", "To look at current fashion brand trends", and "To look at current fashion wear and outfits".

We used the 27 items and 5 factors above to understand participant motives for Instagram use.

### 3.2. Sample Description & Structure of Questionnaire

A revised version of the motive scale developed by Sheldon et al. [53] was conducted online. We targeted the questionnaire at Instagram users who were undergraduates and postgraduates majoring in design or engineering in Taiwan. This study employed the uses and gratifications theory to explore the roles played by satisfaction effects resulting from the Instagram use of young adults. A structured online questionnaire was then used to understand the usage behavior involving this social media app. The structure of the questionnaire comprised three parts. The first part contained a survey of the topics that the participants followed and were interested in and their attitudes towards ads on Instagram. The second part was divided into two parts regarding the motives of participants for looking at and creating Instagram posts using the 27 question items above. The question items were measured on a five-point Likert scale with 1 indicating strong disagreement and 5 indicating strong agreement. The participants were asked to respond based on their personal habits and feelings. The total score and mean score of each factor were used to represent the intensity of each respondent's relevant traits. In the third part, the participants were asked to provide personal information.

## 4. Results

The questionnaire was administered from 3 October to 27 October in 2017. On average, it took participants 7 min to finish the questionnaire. In the end, we obtained a total of 307 valid questionnaires from university design or engineering majors that had Instagram accounts and were in their second year or higher. The participants included 133 male students and 174 female students; 172 participants were design majors, and 135 were engineering majors. In terms of the amount of time spent on Instagram every day, 178 participants spent less than 1 h, 99 participants spent between 1 h and 3 h, and 30 participants spent more than 3 h.

The reliability and validity analyses of the questionnaire were as follows. We adopted factor analysis to categorize the problem attributes of the questionnaire content. A Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of sphericity produced  $KMO = 0.859$  and  $p = 0.000$ , which reached the level of significance and thus indicated that factor analysis was appropriate. Further reliability analysis of the problem attributes revealed Cronbach's  $\alpha$  values between 0.901 and 0.907; overall reliability was 0.907, which met the basic requirement of a Cronbach's  $\alpha$  value greater than 0.7. Thus, our questionnaire had decent consistency and stability.

#### 4.1. Topics of Interest on Instagram and Attitude Toward Ads

In our survey of the topics that the participants followed and were interested on Instagram, we divided the participants into two groups by major for comparison. The participants could choose three topics at the most. In both groups, the most widely followed topics were celebrities (including designers). The greatest difference was in the topic of artisans, where 52% of the design majors showed interest, but only 17% of the engineering majors did as well. Furthermore, the ratio of design majors and engineering majors interested in photography was 45:28, while the ratio of design majors and engineering majors interested in internet celebrities was 1:2 (Figure 1).

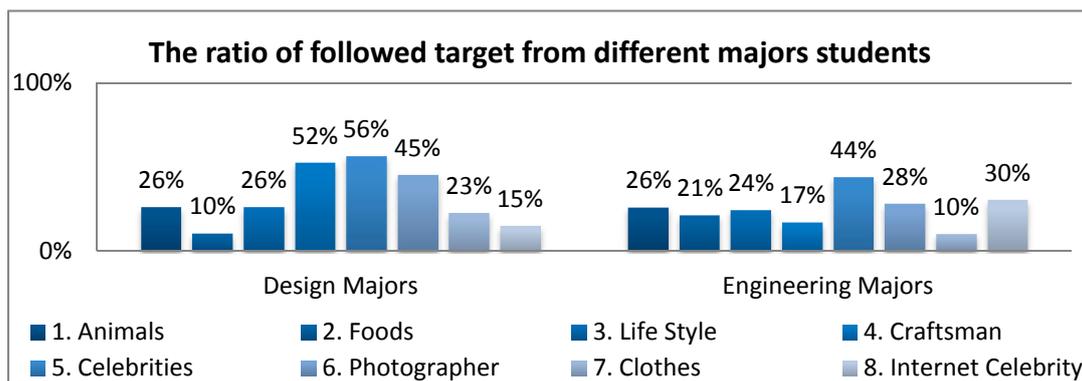


Figure 1. Proportions of Instagram users in different majors interested in different topics.

We then conducted a chi-square test to determine whether any connections existed between major and topics of interest, with major as a nominal variable and topic of interest as an order variable. The results were  $X^2 = 46.914$  and  $p = 0.00 (<0.05)$ , which indicate significant differences among the interests of design majors and engineering majors.

For attention given to ads, 51% of the male participants and 67% of the female participants paid attention to ads when using Instagram. We speculate that the 15% difference was due to gender differences in motives for Instagram use as well as different interests in the type or topic of the ads. As for whether ads were noticed varied with the length of time spent using Instagram (level of addiction), 57%, 65%, and 63% of the participants that used Instagram for less than 1 h, between 1 h and 3 h, and more than 3 h paid attention to ads, respectively, thereby presenting no significant differences.

#### 4.2. Influence of Professional Training Background on Motive for Instagram Use

In this study, we divided the motives for Instagram use into five factors: social interaction, documentation, diversion, self-promotion, and creativity. This analysis included a total of 27 question items and were divided into two categories based on whether they involved motives for looking at or creating posts during Instagram use.

After dividing the participants by major, we found significant differences in nine motives for Instagram use, eight of which were motives for looking at posts. Furthermore, most of these motives involved social interaction or creativity. The average score for each question item was greater than three regardless of major. The engineering majors identified more strongly with social interaction motives than the design majors did, whereas the design majors expressed stronger creativity motives than engineering majors. Only one question item was a motive for creating posts: to show off my pets (M, Designers:Engineers = 1.99:2.36) (Table 1).

Dividing the participants by major. In addition, when we look at the motives for Instagram use by gender, significant differences were only found in six question items (Table 2). Two concerned motives for looking at posts: one in creativity (Mean, Male:Female = 3.52:3.8) and the other in diversion (Mean, Male:Female = 2.95:3.33), and the other four items involved motives for creating posts: two

in self-promotion and two in creativity. In all four items, male students expressed higher levels of agreement than female students.

**Table 1.** Influence of professional training background on motive for Instagram use.

Motives	Training	N	M	SD	<i>p</i>
1. To follow my friends	Design	172	3.59	1.228	0.003 **
	Engineering	135	3.97	1.000	
2. To see updates of my friends	Design	172	3.74	1.188	0.001 **
	Engineering	135	4.13	0.904	
3. To Interact with others (comment & like)	Design	172	3.01	1.228	0.001 **
	Engineering	135	3.44	1.048	
4. To see the updates of those I follow	Design	172	3.87	1.180	0.032 *
	Engineering	135	3.59	1.082	
7. To appreciate different lifestyles and photography works	Design	172	4.27	0.897	0.001 **
	Engineering	135	3.89	1.056	
8. To seek creative inspiration	Design	172	4.02	1.017	0.000 ***
	Engineering	135	3.25	1.183	
9. To look at current fashion brand trends	Design	172	3.63	1.144	0.001 **
	Engineering	135	3.17	1.249	
10. To look at current fashion wear and outfits	Design	172	3.59	1.154	0.019 *
	Engineering	135	3.26	1.287	
25. To Show off my pets	Design	172	1.99	1.264	0.013 *
	Engineering	135	2.36	1.308	

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001.

**Table 2.** Influence of gender on motives for Instagram use (male vs. female).

Motives	Gender	N	M	SD	<i>p</i>
8. To seek creative inspiration	Male	133	3.52	1.172	0.032 *
	Female	174	3.80	1.131	
15. To escape awkward situations (pretending to be busy or in traffic)	Male	133	2.95	1.328	0.011 *
	Female	174	3.33	1.255	
22. To become popular (gain followers)	Male	133	2.47	1.259	0.014 *
	Female	174	2.14	1.050	
24. To self-promote myself	Male	133	2.88	1.332	0.001 *
	Female	174	2.39	1.116	
26. To create art	Male	133	3.11	1.298	0.002 *
	Female	174	2.68	1.148	
27. To show off my photography skills	Male	133	3.15	1.379	0.000 ***
	Female	174	2.59	1.207	

\* *p* < 0.05, \*\*\* *p* < 0.001.

Internet or social media addiction cannot be solely defined by the amount of time spent on the internet or social media [9]. However, recent surveys indicated that the average individual spends 3 h using his or her smartphone, most of which is spent on social media apps [11]. We surveyed 307 university students who had used the Instagram smartphone app continually for more than a year regarding how long they use Instagram every day, and 129 students responded with 1 h or more (including 1~3 h and over 3 h). Based on the above information, we defined heavy users of Instagram as those who used Instagram for more than 1 h per day in this survey. This mediation factor presented significant differences in 18 question items, which means that the amount of time spent on Instagram is correlated to motives for Instagram use. Among the 18 question items, 11 concerned motives for looking at posts, and 7 involved motives for creating posts: 3 items in social interaction, 5 items in documentation, 5 items in diversion, 2 items in self-promotion, and 3 items in creativity. All of the items regarding documentation and diversion presented results that varied significantly with Instagram heavy users and light users (Table 3).

**Table 3.** Analysis of motives for Instagram use based on amount of time spent on Instagram every day.

		N	M	SD	p
2. To see updates of my friends	<1 h	178	3.80	1.125	0.040 *
	>1 h (heavy)	129	4.06	1.021	
3. To Interact with others (comment & like)	<1 h	178	2.98	1.150	0.000 ***
	>1 h (heavy)	129	3.50	1.133	
6. To Find something new	<1 h	178	3.52	1.180	0.000 ***
	>1 h (heavy)	129	3.98	1.000	
8. To seek creative inspiration	<1 h	178	3.57	1.216	0.039 *
	>1 h (heavy)	129	3.84	1.052	
9. To look at current fashion brand trends	<1 h	178	3.28	1.275	0.007 **
	>1 h (heavy)	129	3.64	1.088	
10. To look at current fashion wear and outfits	<1 h	178	3.21	1.262	0.000 ***
	>1 h (heavy)	129	3.76	1.095	
11. To relax (have a break)	<1 h	178	4.15	0.884	0.002 **
	>1 h (heavy)	129	4.44	0.706	
12. To kill time	<1 h	178	4.12	0.958	0.000 ***
	>1 h (heavy)	129	4.50	0.741	
13. To avoid loneliness	<1 h	178	2.84	1.134	0.008 **
	>1 h (heavy)	129	3.19	1.139	
14. To escape from reality (pressure)	<1 h	178	2.70	1.224	0.012 *
	>1 h (heavy)	129	3.07	1.318	
15. To escape awkward situations (pretending to be busy or in traffic)	<1 h	178	2.92	1.312	0.000 ***
	>1 h (heavy)	129	3.50	1.206	
16. To depict my life through photos	<1 h	178	3.30	1.266	0.000 ***
	>1 h (heavy)	129	3.95	1.063	
17. To commemorate an event	<1 h	178	3.31	1.290	0.000 ***
	>1 h (heavy)	129	3.85	1.160	
18. To remember special events (shared collective event)	<1 h	178	3.53	1.354	0.000 ***
	>1 h (heavy)	129	4.15	1.047	
19. To remember something important to myself	<1 h	178	3.58	1.256	0.000 ***
	>1 h (heavy)	129	4.16	0.991	
20. To record my emotional state (innermost feelings)	<1 h	178	3.01	1.262	0.001 **
	>1 h (heavy)	129	3.55	1.430	
21. To gain attention from followers (Like & Comment)	<1 h	178	2.44	1.184	0.020 **
	>1 h (heavy)	129	2.78	1.270	
23. To show off	<1 h	178	2.67	1.265	0.015 *
	>1 h (heavy)	129	3.02	1.195	

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

## 5. Discussion & Conclusions

This study examined the usage motives and topics of interests of Instagram users studying at university or graduate school. A total of 307 valid questionnaires were obtained. On the whole, the motives for Instagram use were mostly to look at posts, particularly for the sake of social interactions and diversion. In contrast, the level of agreement expressed in creating Instagram posts was lower, which demonstrates that Instagram's emphasis on visual communication is widely accepted by the cyber-psychology needs of young people in social communication. When the participants were divided by major, the results of this study indicate that the average scores given by design majors to items "To appreciate different lifestyles and photography works" and "To seek creative inspiration" were both greater than 4, which shows that design majors strongly agreed that their motives for Instagram use were associated with creativity. In contrast, the engineering majors only gave an average score greater than 4 to the item "To see updates of my friends". In contrast, both design majors and engineering majors showed interest in fashion brands and current fashion wear. With gender as the independent variable, female students used Instagram "to escape awkward situations" more often than male students, while male students used Instagram to show off themselves more often than female students. Gender influenced motives for creating posts more than it influenced motives for looking at posts.

Young people today use their smartphones for prolonged periods of time. In the investigation of this study, 42% of the participants spent more than 1 h on Instagram alone every day. Although this does not mean that these participants are addicted to online social media, it does confirm that Instagram is popular among young people today. Regardless of the amount of time they spent on Instagram every day, the participants expressed strong agreement that they used Instagram to relax and kill time with average scores greater than 4. However, the participants that spent more than 1 h on Instagram every day gave significantly higher scores to 18 question items. Of particular note, they gave average scores greater than 4 to items “To see updates or my friends”, “To remember special events”, and “To remember something important to myself”, which means that heavier users of Instagram focus on documentation more than those with a slight Instagram users. When applied to the findings of this study, the uses and gratifications theory suggests that gender, major, and amount of time spent on Instagram are correlated with significant differences in motives for Instagram use. This means that males vs. females, Designers vs. Engineers, and heavy users vs. light users turn to this platform to satisfy different needs. From the perspective of computer-mediated communication (CMC), the popularity of Instagram among young people has much to do with its use of visual images as the primary means of revealing information. Young adults in Taiwan show a marked preference for images and videos over posts when compared to those in Europe and the US, which indicates that communicating with strong visual images is the mainstream CMC model for young people in Taiwan.

In conclusion, female students notice Instagram ads more than male students do; heavy users have stronger motives than light users do and thus mostly gave higher average scores; over half of the design majors followed artisans and celebrities (including designers); female students use Instagram to escape awkward situations more than male students do, and male students want to promote themselves more than female students do. The amount of time spent in usage is a crucial method of distinction that found significant differences in more than half of the question items, and it also shows that heavy users like to document. The limitations of this study are as follows. The samples were mainly obtained via convenience sampling and come from a single university. Thus, the samples are limited in terms of diversity and representativeness of the general population. Also, the distinction between heavy and light users was based on the fact that nearly half of the participants in this study spent more than 1 h on Instagram every day. We did not design a suitable questionnaire regarding internet addiction or base our investigation on addiction. In future research, we suggest taking samples from different types of universities and adding an existing smartphone or internet addiction questionnaire for investigation and classification of the addictive tendencies of users. In future research, we plan to analyze and explore the types of Instagram ads, heavy users, and the interest categories of users.

**Author Contributions:** Conceptualization, Y.-T.H.; Data curation, S.-F.S.; Project administration, Y.-T.H.; Software, S.-F.S.; Supervision, Y.-T.H.; Writing—original draft, S.-F.S. & Y.-T.H.; Writing—review & editing, Y.-T.H.

**Funding:** This research was funded by the Ministry of Science and Technology in Taiwan; Grant No. MOST 106-2410-H-033-034-.

**Acknowledgments:** The authors wish to thank Dr. Chang-Ming Wu for his helpful suggestions.

**Conflicts of Interest:** The authors declare no conflicts of interest.

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