

# **Effects of Narcissism, Leisure Boredom and Gratifications-sought on User-generated Content among Net-generation**

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### **ABSTRACT**

This research identifies the gratifications-sought by the Net-generation in producing user-generated content (UGC) on the internet. The Net-generation wants venting their negative feeling, showing affection to their friends and relatives, being involved in others' lives, and fulfilling their needs for being recognized. These gratifications are all found significantly associated with the level of participation in UGC. At the same time, uses of various UGC platforms (e.g., Facebook, YouTube, blogs, online forums, etc.) are driven by different gratifications. Besides, narcissism and leisure boredom are two attributes found in the Net-generation. Narcissism acts as a predictor for the level of overall participation in UGC, while leisure boredom relates significantly only to some UGC platforms. The results also show that Net-generation who encounter leisure boredom have higher tendency to seek interaction with friends online.

**Key words:** Narcissism; leisure boredom; user-generated content; uses and gratifications

## INTRODUCTION

The internet has become an integral part of young adults' life. It is even more flourished in the "Web 2.0" era. People are no longer passive recipients of the media; they can be contributors, too. A number of sites such as Facebook, YouTube, MySpace, to name a few, invite users to share experiences, comments, personal status and even creative works with users all around the globe. Such content contributed by the users are called user-generated content (UGC). In this study, UGC includes content produced by end-users on Facebook, YouTube, MySpace, Twitter, blogs, online forums, reviews and similar sites/applications, out of professional routines and practices.

GC on the internet are not merely for entertainment or passing time, but also lead to citizen journalism (Gillmor, 2004) and social movement (Birdsall, 2007). Websites and various online applications are popular among the "Net-generation" (Tapscott, 2009), who were born between late seventies to mid-nineties. Apart from "Net-generation (Net-geners in short)", they are also labeled as "Digital Native" (Prensky, 2001), "Generation Y" (McCrindle, 2002), "Millennial" (Howe & Strauss, 1992) and even "Post 80s (in China)". They are the first generation whose experience, since their formative years, was shaped by digital media, hence many assume they have unique attitude towards technology (Kennedy et al., 2007). Leung (2003) suggested that attitude and interests among the Net-geners are diverse yet they have the same deeply held value. They believe they have equal opportunities to access information,

and are confident to be innovative and open to the outside world. In fact, Net-geners join discussions of social issues actively by generating UGC on the Internet. Such discussions, for example, initiated opposition to the Hong Kong Governments' express rail link proposal. Net-geners reported their findings and encouraged discussion online. Consequently, thousands of youths in January, 2010 surrounded the Legislative Council and confronted the police (Tsang, 2010).

Past studies have examined the Net-geners' use of internet (Kennedy et al., 2007; Leung, 2003), but the Net-geners' UGC production behavior has not been thoroughly explored. While the Net-geners are trying to influence the world by generating online content, their motivations behind are worth looking into.

## **THEORETICAL FRAMEWORK**

### **Gratifications of generating content online**

The users' decision making process in selecting media has been one of the major topics in technology development (Stafford, Stafford, & Schkade, 2004). Uses and gratifications (U&G) approach studies the underlying motivations and goals of the audience when they engage in different media (Leung, 2009). U&G studies do not have a single general theory (Blumler, 1979), but this approach has a core assumption which audience actively choose the mass media to fulfill their own needs and the process is goal-oriented

(Katz & Blumler 1974).

Rosengren (1976) concluded that users' needs were based on their social and psychological origin. Had their expectations on the media grown, their way to engage in the media was affected. After using the media, gratifications which are needed or unexpected are formed. Past researches identified two major forms of media gratifications, which were content gratifications and process gratifications (Cutler & Danowski, 1980; Stafford & Stafford, 1996).

The flourishing of computer mediated communication (CMC) such as the internet provides new research field for U&G approach. As internet has its' media-like nature, theorists believed U&G suited internet studies (Johnson & Kaye, 2003; Lin, 1999; Weiss, 2001). Ruggiero (2000) suggested that U&G studies regained their significance after CMC emerged, because technologies provided people with a huge range of media choices, hence motivations and satisfactions obtained were more crucial in the analysis of audiences. Users may obtain more gratifications from internet than from traditional media. Eighmey and McCord (1998) proposed that websites fulfill users' needs in similar ways with other media while they also provide other dimensions like personal involvement and continuing relationship at the same time.

Several researches have shown gratifications obtained from internet by the general net users, including internet (Papacharissi & Rubin 2000) itself and applications like E-mail

(Dimmick, Kline & Stafford, 2000), ICQ (Leung, 2001) , social networking sites (Dunne, Lawlor & Rowley, 2010), computer-based voice over Internet protocol (VoIP) phone service (Park, 2010) and online community (Lampe, Wash, Velasquez & Ozkaya, 2010).

Users who create UGC are gratified by it enormously (Schwartz, 2009). As the users are not profit-driven (Benkler, 2006), this media activity is generally active and gratification seeking, which suits the framework of U&G studies.

Until now, a few researches explored the motivations and the gratifications obtained by users while generating online content. Leung (2009) found that social needs, cognitive needs and entertainment needs motivate users to produce online content. Level of civic engagement out of the internet world is as well a predictor of producing online UGC. Hess, Rohrmeier and Stoeckl (2007) found that video-bloggers are keen in having fun and passing time, while web-bloggers are keen in spreading the information.

Each of the media offers a unique combination of content, typical attributes and exposure situation. Therefore, ability in each medium to satisfy various needs is different (Katz, Blumler & Gurevitch, 1973). However, the U&G studies on Net-geners' online UGC production behavior are still scarce so this research is going to fill the blank. Based on the uses and gratifications framework, this research extends previous findings and asks the following research question:

*RQ1: What motivates Net-geners to produce content online?*

*H1: The more Net-geners find online content generation experiences gratifying, the more they will participate in user-generated content activities.*

### **Characteristics of the Net-generation**

So what are the characteristics of the Net-geners? Tapscott (2009) identified Net-geners as youths who adapt to new media and are outspoken on the net. They are willing to take the initiative in helping the society transforming into a more tolerant and open one (Tulgan & Martin, 2001). The generation also has confidence and high self-esteem.

Net-geners' enthusiasm in internet is driven by various motivations. Leung (2003) conducted an U&G research on Net-geners' internet behaviour, and identified "pleasure of control" and "fluidity of identity" as important attributes among the Net-generation.

Net-geners' are "emotionally open on the net" (Leung, 2003) and like to share their emotions with others (Oblinger & Oblinger, 2005).

The emotions shown by Net-geners on the internet are diverse. The Net-generation dare to voice out what they are not content with. Users are keen in venting their negative feelings on the consumer review sites (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004). Politically, Tapsoctt (2009) noted that the Net-geners had negative views on the current regimes and opposed the conservative value in the society. They wanted to "shake it up" by being outspoken on the internet, as well as collaborating with the politicians.

Net-geners use technology as a mean to connect friends in their “real life” (Howe & Strauss, 2000). Interactions between Net-geners and their friends can be characterized as encouraging, thanksgiving and opinions-sharing. Besides showing affection, Tapscott (2009) commented that the “pro-sumer” nature of the net enabled it to be a platform for collaboration. The users not only collaborated at work, they worked together on everything.

Some users produce content online out of their need for recognition. The pursuit of personal identity had been proved as a gratification from internet (Papacharissi & Rubin, 2000) and user-generated content (Leung, 2009). Park, Kee and Valenzuela (2009) claimed that status seeking was a primary need for those who used social networking sites.

Grace-Farfaglia, Dekkers, Sundararajan, Peters and Park (2006) also identified social support, fame and respect as the gratifications-obtained by 400 web users from various countries.

### **Leisure Boredom**

Boredom is a fleeting emotional state in which someone lacks interest and is unable to concentrate (Fisher, 2003). In leisure time, as long as the leisure time is not optimally spent, people come across leisure boredom (Iso- Ahola, 1980). Net-geners encounter boredom easily and need to participate in various activities in order to overcome (Harrison, 2005). Leung (2008) proposed that people who encountered higher level of leisure boredom were



more dependent on mobile phones. Lin, Lin & Wu (2009) discovered that leisure boredom is a possible cause for adolescents' internet addiction, while adolescents who were fond of family and outdoor leisure activities reported lower level of internet addiction.

Studies in the relationship between leisure boredom and user-generated content are rare. As many Net-geners may now contribute contents on Facebook, YouTube, Twitters, blogs and online forums to kill time in leisure, it should be worthwhile to examine the effect of leisure boredom on participation in user-generated content.

*H2a: Subjects who score high on the level of leisure boredom will report a higher frequency of producing content online.*

*H2b: Subjects who score high on the level of leisure boredom will find online content generation experiences more gratifying.*

## **Narcissism**

Narcissism is the fascination with oneself. Narcissism, according to Freud (1914) is investing the energy of libido into ego, which is equivalent to “having sexual desire towards (my) self”. Freud explained that narcissism was out of human’s instinct of “self-preservation”, and human were unable to part sexual desire with their desire of self-care properly.

Campbell and Foster (2007) conducted a literature review on narcissism and concluded a few of the values in narcissists:

- 1) They thought themselves were better than others;

- 2) Their praises on themselves were usually inflated;
- 3) Narcissists thought they were unique and special;
- 4) Researches showed narcissists were selfish;
- 5) Narcissists were success-oriented.

Narcissists are not exceptional. Foster and Campbell (2007) suggested that narcissism is a part of social psychology. They found people were all narcissistic in some way. Brown, Budzek and Tamborski (2009) also supported that narcissism is dimensional but not categorical, with grandiosity and entitlement as the two most general clusters.

Some researchers believed young people have become more narcissistic. Twenge, Konrath, Foster, Campbell and Bushman (2008) conducted a survey among more than 16,000 college students and found that they were more narcissistic than those in 1979. The respondents' mean score in Narcissism Personality Inventory was increased by .33 standard deviation in 27 years. Twenge, Konrath, Foster, Campbell and Bushman (2008) also suggested in another study that as self-esteem programs in school had become popular, the students were more narcissistic.

Narcissism encouraged online activities in some ways. Buffardi and Campbell (2008) found that narcissism predicted higher participation in social networking sites like Facebook.com. The content might reflect the producers' level of narcissism. Thus, we hypothesize that:

*H3a: Subjects who are more narcissistic will report a higher frequency of producing content online.*

*H3b: Subjects who are more narcissistic will find online content generation experiences more gratifying.*

Furthermore, this exploratory also asks:

*RQ2: How can gratifications-sought from UGC be predicted by Net-geners' attributes and demographics?*

*RQ3: To what extent can demographics, motives of online content generation, leisure boredom, and narcissism in Net-generation predict their participation in producing online content?*

## **METHOD**

### **Data collection and sampling**

The data for the study were collected by online questionnaire, which was in Chinese, on [www.my3q.com](http://www.my3q.com), with a snowball sampling of 344 Net-geners aged 13-33. The questionnaire was piloted prior to the actual fieldwork. The actual questionnaire was put online between 19 March 2010 and 9 April 2010. Among the respondents, 47.4% are male. 63.7 % of respondents have the median monthly personal income under HKD10,000. Within the sample, 1.5% of the respondents completed Primary School, 12.5% completed Form 5,

12.5% have passed the A-level, 5.8% obtained associate degrees, 67.7% of them claimed that they were university graduates or above.

## Measures

*Gratifications of internet content generation.* A focus group dated in mid-Feb 2010 collected 12 Net-geners' reports on their gratifications-sought in online content generation. The similar gratifications were combined and the minority ones were omitted. Related gratification items were similar to those in a number of previous U&G researches including internet (Papacharissi and Rubin, 2000), Net-geners on internet (Leung, 2003), online consumer-opinion platform (Hennig-Thurau et al., 2004) and user-generated content (Leung, 2009).

A pilot study was carried out in order to refine the questionnaire. Ten Net-geners were presented the trial version of questionnaire and were invited to single out items that were ambiguous and repetitive.

The final questionnaire consisted of 18 gratification statements. A five-point Likert scale was used (1='strongly disagree', 5='strongly agree').

*Leisure Boredom.* Degree of leisure boredom of the respondents was measured by a five-item, short version of the Leisure Boredom Scale, which was developed by Iso-Ahola & Weissinger (1987). Five relevant items were extracted from the original scale such as 'In my leisure, I usually don't like what I'm doing, but I don't know what else to do' and 'Leisure

time activities do not excite me'. A five-point Likert scale was used (1='strongly disagree', 5='strongly agree'). The Cronbach's Alpha is .79, which shows the reliability is reasonable.

*Narcissism.* An established scale for the assessing narcissism, called Narcissistic Personality Inventory (NPI), was used. Raskin and Hall (1979) developed NPI in order to measure the narcissisms among individuals who are out of the clinical populations. Raskin and Terry (1988) then discovered that the original 40-items inventory can be divided into seven components. Five items from the inventory were used in the research with ones like 'I really like to be the centre of attention' and 'I want to amount to something in the eyes of the world'. A five-point Likert scale was used (1='strongly disagree', 5='strongly agree'). The items had reasonable reliability (Cronbach's Alpha=.78).

*Internet use.* Respondents were then asked their perceived level of participation in publishing various forms of user-generated content online. Six main forms of UGC were included: social networking sites, video sites, blogs, personal web-pages, forums and online reviews. Respondents answered by a 5-point scale which '1'='never', '2'='seldom', '3'='neutral', '4'='often' and '5'='very often'. Table 1 tells that content generation on social networking sites is most popular (with a mean score of 3.74), whereas video sites came second (2.88), and blogging came third (2.75). Personal web-page (2.06) was least popular.

(\* Insert Table 1 about here \*)

*Time consumption in online content generation.* Respondents had to fill in the time (in

minute) they have used each day on producing UGC in the past week.

*Demographic* Personal data including sex, education and personal income were asked.

## **FINDINGS**

### **Motives for user-generated contents online among Net-geners**

A principal components factor analysis with varimax rotation was run to determine the potential groupings of 20-motivation items on the Net-generation. Two items were too low in communalities with the others so were omitted. The analysis yielded four factors with an eigenvalue higher than 1.0, and explained 61.02% of the variance (see Table 2).

The first factor was 'affection', which showed how Net-geners' online content generations are motivated by the intention to encourage others, help others, disclose own feeling, and thank others. The reliability of the five items is high, with Cronbach's alpha at .90. The second factor was 'recognition needs' (alpha= .83). The factor consisted of five statements stating that throughout publication of user-generated content, Net-geners hope to establish their personal identity, build up confidence, promote or publicize expertise, and gain respect. 'Inclusion' appeared as the third factor. The factor showed a relatively solid reliability with Cronbach's alpha at .76. The items showed that Net-geners generated online content because they need to talk or be with someone, need to talk about their problems and need to feel involved with other people's stuff.

The last factor was ‘Venting negative feeling’ ( $\alpha=.74$ ) which articulated how respondents see producing content online as an opportunity to deal with their negative feelings in different means which include voice out discontent, fight back to something unfair, and get anger off the chest.

In sum, the four factors are conceptually consistent with the theoretical expectation of the previous studies in our literature review. Generally, the Net-geners concern about their friends and like to show affection to others. Besides, Net-geners want to be involved in the others’ lives and are emotionally open. They are in need of recognition and hope to gain confidence, respect and support; they find promoting their own expertise satisfying. Last but not least, Net-geners do not hide their negative feelings, they are willing to show it as a way to relieve.

(\* Insert 2 about here \*)

### **Hypotheses testing**

To test H1, a bivariate correlation was run (see table 3). Results show that affection ( $r=.15, p<.01$ ), recognition needs ( $r=.21, p<.001$ ), inclusion ( $r=.25, p<.001$ ) and venting negative feeling ( $r=.22, p<.001$ ) have significant association with the overall participation in UGC. Venting negative feelings related significantly with level on UGC participation in all of the platforms: social networking sites ( $r=.13, p<.05$ ), video sites ( $r=.15, p<.01$ ), blogs

( $r = .18, p < .001$ ), personal web-pages ( $r = .18, p < .001$ ), forums ( $r = .16, p < .01$ ) and reviews ( $r = .16, p < .01$ ).

(\* Insert Table 3 about here \*)

Affection is a predictor for participation in social networking sites ( $r = .26, p < .001$ ).

Recognition needs had a notable association with uses of blogs ( $r = .17, p < .001$ ). Respondents who sought for inclusion reported higher level of participation in personal web-pages ( $r = .21, p < .001$ ) and forums ( $r = .22, p < .001$ ). Therefore, H1 is supported.

Bivariate correlations were run to prove H2a and H3a (results on table 3). Narcissism associated significantly with participation UGC overall ( $r = .15, p < .01$ ), social networking sites ( $r = .15, p < .01$ ), blogs ( $r = .15, p < .01$ ), personal web-pages ( $r = .15, p < .01$ ) and forums ( $r = .15, p < .01$ ). Leisure boredom predicted participation in personal web-pages ( $r = .23, p < .001$ ), forums ( $r = .22, p < .001$ ) and review sites ( $r = .19, p < .001$ ). Therefore, H2a and H3a were supported, while H3a was confirmed more forcefully.

Narcissism and leisure boredom each predicted some gratifications-sought. (Table 4)

Leisure boredom was significantly associated with affection ( $r = -.23, p < .001$ ) and inclusion ( $r = .20, p < .001$ ); while narcissism was associated with recognition needs ( $r = .18, p < .001$ ).

Thus, H2b and H3b were supported in some aspects.

(\* Insert Table 4 about here \*)



### **Predicting gratifications-sought from producing UGC**

A regression analysis was run between the gratifications, attributes and demographics, which gratifications were taken as the dependent variables (Table 5), in order to answer the second research question.

(\* Insert Table 5 about here \*)

Leisure boredom had a significant relationship with affection ( $\beta = -.23, p < .001$ ).

Net-geners who were less bored in leisure time found showing affection to the others online more gratifying. Yet higher level in leisure boredom was a significant predictor of higher “inclusion” ( $\beta = .21, p < .001$ ). Another attribute, narcissism, worked as a significant predictor for recognition needs ( $\beta = .17, p < .01$ ). Females were higher in inclusion ( $\beta = -.16, p < .01$ ). Income and education were not predictors for any of the gratifications.

### **Predicting level of UGC generation**

To answer the third research question, which is about the influence of gratifications, attributes and demographics on the amount of participation in generating content online, linear regressions were run.

Results on Table 6 shows that all gratifications were significantly linked to overall participation in user-generated content, respondents who scored high in “inclusion” ( $\beta = .24, p < .001$ ), “venting negative feeling” ( $\beta = .20, p < .001$ ), “recognition needs” ( $\beta = .18, p$

<.001) and “affection” ( $\beta = .16, p < .01$ ) also scored high in overall participation in UGC. It showed that Net-geners who spent more time on producing UGC were interested in voicing out what they did not feel well, gaining recognition from the others, caring about their friends and involving in others’ lives.

(\* Insert table 6 about here \*)

While looking into various platforms for UGC, different kinds of gratifications were recorded. Social network users were high in “affection” ( $\beta = .22, p < .001$ ). “Venting negative feeling” was another gratifications ( $\beta = .12, p < .05$ ) associated. More frequent blog-content producers had larger urge to “venting negative feeling” ( $\beta = .15, p < .01$ ) and fulfill “recognition needs” ( $\beta = .12, p < .05$ ). Heavy personal webpage creators had their gratifications returned in gaining “inclusion” ( $\beta = .14, p < .01$ ) and the opportunities of “venting negative feeling” ( $\beta = .14, p < .01$ ). For the active users on internet forums, gaining “inclusion” ( $\beta = .21, p < .001$ ) and “venting negative feeling” ( $\beta = .15, p < .01$ ) were two major sources of gratifications. Those who liked to be critics online were motivated by “venting negative feelings” ( $\beta = .13, p < .01$ ) and “inclusion” ( $\beta = .12, p < .05$ ).

Narcissism was an important predictor for the use of blogs ( $\beta = .19, p < .001$ ), social networking ( $\beta = .16, p < .01$ ) and overall ( $\beta = .11, p < .05$ ) UGC production. The degree of respondents’ leisure boredom came up with their level of participation in reviews ( $\beta = .20, p < .001$ ) and personal webpage ( $\beta = .19, p < .001$ ). The results indicate that online platforms

are not homogenous for the Net-geners. Net-geners choose various UGC platforms according to their gratifications-sought and attributes.

Among the demographics data, only income level associated with participation in video sites ( $\beta = .12, p < .05$ ) and overall ( $\beta = .11, p < .05$ ) UGC production.

## **CONCLUSIONS AND DISCUSSION**

This research successfully identifies four motivations for Net-geners to produce online content—recognition needs, affection, inclusion and venting negative feelings -- which yielded over 60% of the variance within the sample. The results confirm the characterization of Net-geners from various scholars and writers. The notion by Leung (2009), which recognition needs is an important gratification obtained from producing UGC, is reinforced. The research also supports the statement by Howe & Strauss (2000) that Net-geners connect friends by technology, and the claim from Tapscott (2009) which Net-geners do not hesitate to voice out what they don't feel right. Net-geners among the sample are inclined to show their emotion on the internet, again suggests that Net-geners are “emotionally open on the net” (Leung, 2003) and like to share their emotions with others (Oblinger & Oblinger, 2005).

Apart from gratifications, attributes is another determining factor for Net-generation to produce UGC. Net-geners reported higher level of leisure boredom produced more UGC on some platforms like personal web-pages, forums and online reviews. It may provide

explanation for the notion by Lin, Lin & Wu (2009), which leisure boredom is a possible cause for adolescents' internet addiction. As expected, level of narcissism predicts the level of participation in UGC, especially social networking site, so the claim from Buffardi and Campbell (2008) is supported. Blogs use can be predicted by narcissism, too. It may show that narcissists like to show their uniqueness on blogs; they may also want to promote their expertise on the blogs.

This study also supported that the Net-generation attributes would link with the Net-geners' gratifications obtained from UGC production significantly. Narcissism predicts recognition needs well, which again confirms the note made by Raskin and Terry (1988). Apart from that, Net-geners who reported higher level of leisure boredom were more sought for inclusion and affection, which shows that interpersonal interaction, is what Net-geners who encountered leisure boredom seek for.

In addition to reinforcing previous researches, the study provides certain insights to the issue. The findings pinpoint that Net-geners sought different gratifications from various UGC platforms. Out of the four motivations, venting negative feeling is the most powerful predictor for content generation on blogs and personal web-pages. It may be due to these platforms are less interactive, which allow more room for the users to present themselves. Affection is the only strong predictor for the use of social networking sites. As these sites' main use is for communication among friends, there is no wonder the Net-geners want to

show affection on such sites. Besides, recognition needs of Net-geners affects contribution in forums and blogs. Among the UGC platforms, personal web pages provide largest degree of freedom, but it requires highest level of technical skill, too. Net-geners can show off their skills on art and computer on their pages in order to gain respect from others.

Revealing negative feeling is one of the reason why Net-geners produce UGC content. Some of Net-geners may voice their dissatisfaction on the society online. Society should not ignore such voices, because the negative views may diffuse through the internet and eventually employ a larger field of acceptance, as many people seek guidance from the political information online (Kaye & Johnson, 2002). The views on internet may become the mobilizing power of Net-geners.

Demographics have little effect on UGC production level among Net-geners. One interesting finding is that income level acts as a strong positive predictor of content generation in online review sites. It may reveal that people with bigger spending power have more consumption experience, or they consider themselves more superior and are more appropriate to comment.

The “digital divide” between Net-geners is narrow. The little effect by demographics on the participation in UGC showed that as computer hardware and broadband have been going cheaper, the facilities are common to the Net-geners. The diversity of content within UGC is also appealing to most members of the generation. Therefore, Net-geners do have

fairly equal opportunities and interests to contribute UGC online.

U&G framework is as expected a set of well established media predictors, but further research on the issue is worth considered. Content analysis of the UGC may help to further this study. As “venting negative feeling” is a motivation in the research, the expression of “positive” feeling is recommended to look into, as to investigate the “overall mood” of the user-generated content on the internet. Besides, political or marketing researches may identify UGC platforms which contain more negative views, and study the characteristics of content on these platforms. Researches may also examine if audiences of these platforms will be affected by the content. In future, we may also study the extent to which Net-geners mobilize their friends online by UGC.

A content analysis specializing on social networking sites is worth considering. Findings show that narcissism and affection both lead to more production on the social networking sites. Yet Campbell and Foster (2007) pointed out that narcissists have selfish character, which is contradictory to the concept of affection. Hence a comprehensive content analysis may reveal the complexity and self-contradictory of contents on social networking sites.

Mobile communication is not only an important aspect of technological trends in the 21st century (Kleinman, 2007), it may have impacts on UGC, too. However, the physical venues of producing UGC were not investigated in the research, so the relationship between UGC and mobile technology is worth exploring.

A number of limitations of the study should be recognized. Firstly, this study employs snowball sampling and is based in Hong Kong, so the generalization of the result to the global population may not be justified. It is suggested to do the survey used in this study in other settings, as to make a comparison between samples. Secondly, the research is cross-sectional and only test the relationship between variables, which only tell the variables which are significantly related. Therefore, the follow-up research is recommended to investigate the causal relationship between variables. Furthermore, the research asked respondents to report their perceived participation level or time consumption on producing UGC. Future researches may study the relationship between predictors and volume of content produced.

The result shows that Net-generations are not a homogenous group, they have different psychological attributes, and cannot be distinguished simply by their demographics. Various UGC platforms are as well consumed by Net-geners who sought for different gratifications. Therefore, all professionals in the new media field should notice the trait and develop effective strategies accordingly.

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**Table 1. User-generated content online (N=344)**

<b>User-Generated Content</b>	<b>Mean</b>	<b>SD</b>
1. Social Networking (e.g., Facebook)	3.74	1.23
2. Video Sites (e.g., YouTube)	2.88	1.32
3. Blogs (e.g., Windows Live, Twitter)	2.75	1.22
4. Personal web-page	2.06	1.13
5. Forums	2.56	1.24
6. Online reviews (e.g., OpenRice, ESDLife)	2.19	1.15



**Table 2. Net-geners' gratifications of producing UGC online (N=344)**

I generate content online...	Factors				Mean	SD
	1	2	3	4		
<b><i>Affection</i></b>						
1. To show others encouragement	.888				3.79	1.01
2. to let others know I care about their feelings	.831				3.71	1.03
3. Because I concern about them	.795				3.54	1.03
4. To help others	.791				3.57	1.03
5. To thank others	.753				3.75	.97
<b><i>Recognition needs</i></b>						
6. To build up my confidence		.765			2.80	1.00
7. To establish my personal identity		.754			3.02	1.13
8. To gain respect and support		.733			3.23	1.02
9. Because it is satisfying		.722			3.29	1.10
10. To promote or publicize my expertise		.674			3.11	1.06
<b><i>Inclusion</i></b>						
11. Because I need someone to talk to or be with			.855		3.13	1.03
12. Because I just need to talk about my problems sometimes			.848		3.30	1.04
13. To feel involved with what's going on with other people			.623		2.86	.96
14. To understand myself and others			.548		3.42	.97
<b><i>Venting Negative Feeling</i></b>						
15. To voice out discontent				.820	3.39	1.03
16. To fight back to something unfair				.779	3.22	1.03
17. Because someone harmed me, and I harm him back				.698	2.36	1.08
18. To get anger off my chest				.609	3.08	1.18
Eigenvalue	6.07	2.74	2.06	1.33		
Variance explained	30.35	13.71	10.31	6.65		
Cronbach's Alpha	.90	.83	.76	.74		

Scale used: 1=strongly disagree and 5=strongly agree.

**Table 3. Correlations analysis of participation in UGC using demographics, gratifications and attributes as predictors (N=344)**

PREDICTORS	PARTICIPATION IN USER-GENERATED CONTENT						
	Overall	Social networking	Video sites	Blogs	Personal web page	Forums	Review
<b>Demographics</b>							
Gender (male=1)	-.05	-.12*	-.02	-.10	-.12*	.10	-.11
Education	.11	.14**	.00	.04	.01	.00	.16**
Income	.09	.10	.10	-.09	-.04	-.04	.21***
<b>Gratifications</b>							
Affection	.15**	.26***	.03	.09	-.02	-.12*	.00
Recognition	.21***	.03	-.01	.17***	.11*	.12*	.09
Inclusion	.25***	.06	.02	.09	.21***	.22***	.16**
Venting negative feeling	.22***	.13*	.15**	.18***	.18***	.16**	.16**
<b>Net- geners attributes</b>							
Leisure boredom	.07	-.13*	.06	.09	.23***	.22***	.19***
Narcissism	.19***	.17***	.05	.25***	.19***	.12*	.06

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\*  $p \leq .001$

**Table 4. Correlations analysis gratifications using demographics and attributes as predictors (N=344)**

	<b>Gratifications-Sought</b>			
	<b>Affection</b>	<b>Recognition</b>	<b>Inclusion</b>	<b>Venting negative feeling</b>
<b>Demographics</b>				
Gender (male=1)	-.13*	-.24	-.15**	-.26
Income	.01	-.01	-.06	.06
Education	.12*	.13*	-.03	-.02
<b>Attributes</b>				
Leisure boredom	-.23***	.02	.20***	.09
Narcissism	.01	.18***	.06	.10

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

**Table 5. Regressing gratifications-sought on demographics and Net-geners attributes (N=344)**

Predictors	Gratifications-Sought			
	Affection	Recognition	Inclusion	Venting negative feeling
	$\beta$	$\beta$	$\beta$	$\beta$
<b>Demographics</b>				
Gender(male=1)	-.10	-.01	-.16**	-.04
Income	-.04	-.02	-.34	.10
Education	.10	.13	-.56	-.05
<b>Attributes</b>				
Leisure boredom	-.23***	.01	.21***	.09
Narcissism	.03	.17**	.04	.11*
$R^2$	.08	.05	.07	.03
Adjusted $R^2$	.06	.04	.06	.02

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\*  $p \leq .001$

Table 6. Linear regression of demographics, gratifications and Net-geners attributes on user-generated content (N=344)

Predictors	PARTICIPATION IN USER-GENERATED CONTENT						
	Overall	Social networking	Video sites	Blogs	Personal web page	Forums	Review
	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
<b>Demographics</b>							
Gender (male=1)	.03	-.05	-.02	-.07	-.10	.13*	-.08
Education	.04	.07	-.03	.02	.00	.02	.10
Income	.11*	.08	.12*	-.06	.00	-.01	.22***
<b>Gratifications</b>							
Affection	.16**	.22***	.04	.08	.00	-.07	.02
Recognition	.18***	-.01	-.01	.13*	.08	.11*	.07
Inclusion	.24***	.06	.00	.04	.14**	.21***	.12*
Venting negative feeling	.20***	.12*	.13*	.15**	.14**	.15**	.13*
<b>Net-geners attributes</b>							
Leisure boredom	.07	-.13*	.06	.09	.23***	.22***	.19***
Narcissism	.11*	.16**	.04	.19***	.12*	.04	.01
$R^2$	.20	.14	.04	.13	.14	.14	.15
Adjusted $R^2$	.18	.12	.01	.10	.12	.12	.13

\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$