Investigating Adolescent Bloggers from the Perspective of Creative Subculture

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ABSTRACT

This study focuses on the phenomenon of adolescent bloggers' creativity from adolescent peers' viewpoints. The participants are five twelve- to eighteen-year-old adolescent bloggers who continue managing their blogs. Online questionnaire and semi-structure interviews have been conducted to get participants’ ratings on their perceptions of creativity about themselves and peers. The results suggest that (1) the definition of creativity among adolescent bloggers is novel, useful, and valuable; (2) creativity can be enhanced from doing learning activities and practicing; and, (3) blog serves as a place where adolescents can present their works and also communicate with peers.

Keywords: Adolescent Subculture, Blog, Creativity, Education, Learning

1. INTRODUCTION

Currently numerous studies have focused on the use of Web 2.0 technologies such as blogs in educational settings (Weller, 2007; Kerawalla, Minocha, Kirkup, & Conole, 2009; Chong, 2010). Most of existing Web 2.0 in education researches claim blog as facilitation role in learning environment to enhance students’ learning, or to provide opportunity for learners to discuss or interact with others (Liu & Chang, 2010; Pachler, Daly, Mor, & Mellar, 2010; Petrakou, 2010; Wang, 2009; Richardson, 2006; Wells, 2006; Flatley, 2005; Williams & Jacobs, 2004; Seal & Przasnyski, 2001). In recent years, with the popularity of computer and internet, adolescents are spending much more time online (Lupac & Sladek, 2008), especially some of them use blog as a tool writing diaries and presenting their thoughts.

The advent of the internet has changed the traditional conditions of personal identity. As the physical interaction detached from face-to-face communicate environment in the online environment, it becomes possible for individuals to interact with others online in the disembodied text approach. Moreover, anonymity makes it possible for individuals to withhold personal
information, such as name, gender and residence. The combination of disembodiment and anonymity on the one hand creates a new kind of personal identity production emergence, on the other hand creates a safety place for individuals to express themselves (Bargh, McKenna, & Fitzsimons, 2002; Zhao, Grasmuck, & Martin, 2008). Recently, studies related to adolescent identity development shifted from face-to-face situation to the online environments (Derks, Bos, & Grumbkow, 2007; Huffaker & Calvert, 2005; Herring, Schedit, Bonus, & Wright, 2004; Groenvant, 1998). For example, Danet and colleagues focus on online usage of emoticons. Results indicate emoticons play an important role in online communication environment to make up the lack of disembodied effect (Danet, 1998; Danet, Ruedenberg, & Rosenbaum-Tamari, 1998). However, few studies focus on spontaneous bloggers, especially adolescent bloggers, how they present thoughts and creativity on their blogs.

The central purpose of this study is to investigate adolescent bloggers from the perspective of creativity subculture. More specifically, based on the key concerns of Web 2.0, this study was undertaken in order to understand how adolescent bloggers define and aware creativity, and how them evluate the creativity they and their peers have. This study may lead a better understanding of adolescent subculture from the perspective of creativity, from both aspects of self awareness and peers’ viewpoint.

For these objectives to be achieved, the article is structured as follows. The first section deals with a review of literature, addressing both theoretical and empirical aspects of the role of blogging, adolescent subculture, and creativity; after which research methodology is carried out, with details of a statement of the specific research questions, the participants in the research, and the procedures used. Results are then presented following each of these descriptive sections. Finally, discussion and conclusion are drawn, and suggestions are also made for further research.
ent from Blood’s viewpoint, Krishnamurthy (2002) classifies blogs into two dimensions, i.e. personal/topic and individual/community. Herring, Scheidt, Bonus, and Wright (2004) first using systematic approach to study blog articles. They randomly selected 203 blogs, using content analysis empirically coding blog features with different blog genres. Base on blog genres, researchers can understand blog usage in a systematic approach, and also easy to cluster them. However, due to the plentiful and variety contents, it is hard to categorize one blog article into one single dimension from the reader’s point of view. However, finding out blog genres enables researchers portraying the whole picture of blog use (Herring, Scheidt, Bonus, & Wright, 2004). Due to the familiarity with the blog, blog genres defined by adolescent themselves can precisely be revealed; however, blog genres defined by researchers according to previous studies can make the connection to other researches with the same coding standard. Therefore, in this study, blog genres are both defined by adolescent bloggers themselves and researchers.

The combination of blogging and learning portrays an idea that learning is not restricted to classroom. Two learning metaphors, acquisition metaphor (AM) and participation metaphor (PM), have proposed by Sfard (1988). In the acquisition metaphor, the goal of learning is to achieve individual enrichment. On the other hand, in the participation metaphor, the goal of learning is to building a learning community. Dohn (2009) further describes the discrepancies between Web 2.0 and educational practices. In educational practices, learning activity is usually organized by experts to cultivate learners’ ability in order to fit in their working life in the future. In Web 2.0 practices, learning activity is viewed as a process of communication, participation, and construction among participants. From the perspective of participation metaphor, learning is a process of participation, communication, and sharing. Similar to PM, in blog, bloggers learn what they interest through continuous writing and posting their blog articles. Learning is not a passive process anymore, but an active, purposeful, and meaningful process.

2.2. Culture and Adolescence Subculture

Culture, according to the definition on Cambridge dictionary, is the way of life which generated from a particular group of people at a particular time. It not only appears in the way of art or knowledge, but also influences individual’s thoughts and behaviors. Subculture, is part of culture, also indicates a way of life. However, subculture especially asserts customs and ideas of a particular group of people within a society, which are different from the rest of that society (Rice, 1990).

Adolescence may be labeled as the period of life when questions of personal identity. From the viewpoint of Erickson, this is the period of developmental crisis happens (Erickson, 1963, 1994). Crisis of adolescence in this period mainly come from the inconsistency between two spectrums: self identity and role confusion (Blinka & Smahel, 2009; Gackenbach & Stackelberg, 2007; Calvert, 2002). Erickson (1963) asserted that it is difficult especially for adolescence to forming self identity. With the characteristics of anonymous and asynchronous, internet provides a space for adolescence to self-exploration, self-expression, and redefinition of identity (Turkle, 1995). Generally, adolescents perceive their role online as an extension of their offline identity (Subrahmanyam, García, Harsono, Li, & Lipana, 2009).

In recent year, the advent of internet has changed the traditional conditions of identity production. As the detached from face-to-face environments with the rapid increase of internet, studies situation related to adolescent identity development shifted from face-to-face situation to the online environments (Herring, Kouper, Scheidt, & Wright, 2004; Huffaker & Calvert, 2005). Huffaker and Calvert (2005) focus on online adolescent subculture and online identity among blog adolescent users. Results indicate that male and female adolescent bloggers present themselves similarly in the online space, for example, they often reveal real names, ages, gender, and locations; however, male bloggers use more emoticons than female to express
their emotions, and more resolute language use. These researches focus on adolescent blogging behavior, however, there has been little empirical research on the issue of adolescent subculture, especially from the viewpoint of creativity.

2.3 Creativity, Adolescence Subculture, and Blogs

The concept of creativity has been blurred to define for a long time (Csikszentmihalyi, 1996; Simonton, 1999). Some researchers develop liner and non-liner model from the focus of psychological process (Wallas, 1926; Torrance, 1974; Koberg & Bagnall, 1981; Necka, 2003); other researchers belongs to different disciplines have their different research interests. Recent researches turn to use compound perspectives to investigate creativity, and regard creativity as a dynamic process (Sternberg, 1999; Csikzentmihalyi, 1996). These definitions are most defined by adults or by professionals, however, when we trying to study specific adolescent subculture, is it possible to define creativity from the perspective of adolescence members? Hence, adolescents peer review are used in this study to evaluate adolescent bloggers’ creativity from the perspective of creative subculture, and to investigate how adolescent bloggers aware of creativity and how they rate their and peers’ creativity.

Creativity is a part of our daily lives (Runco & Richards, 1997) but difficult to define (Simonton, 1989), especially given a diverse definition used in varied fields. Cognitive psychologists prefer to define creativity in terms of a mental process (Smith, Ward, & Finke, 1995); psychologists in experimental field claimed creativity as a product (Martindale, 1990; Simonton, 1989). Personality psychologists prefer to treat creativity as a trait (Barron, 1969; Eysenck, 1993); later creativity researchers regarding creativity as an outcome, such as a novel idea (Amabile, 1983, 1988; Woodman, Sawyer, & Griffin, 1993). Generally speaking, researchers agree that creativity is a concept needs creative producers to have multi-discipline knowledge and also a problem solving process (Torrance, 1974; Gardner, 1988; Csikszentmihalyi, 1996; Amabile, 1996).

Amabile (1996) researches key elements of creativity from the integrative perspectives from social psychology approach and social context approach. She emphasizes two characteristics of creative task: ill-structured and open-ended, and she also asserts the proper creative task should be heuristic and non-algorithmic. Heuristic means creative task can be solve in multidimensional approaches, which provide possibilities for individual to accomplish creative task; on the contrary, algorithmic task means creative task can be solve in a simple and step-by step approach, which restrict the possibilities of creativity due to its fix problem solving steps. Csikszentmihalyi (1996) argues that creativity not merely comes from individual’s brain, but also the result of interaction between individual thoughts and social culture. He further indicates that creativity is an interactive product among individual person, domain, and field. Individual person asserts the personal traits, background, thinking style, and so on; domain is a sufficient element of creativity. To generate creative idea need to base on fundamental knowledge. Only when creative idea approved by domain gatekeepers, it has the chance to keep in the domain; field indicates the influential person in the domain who have the power to decide the legitimacy in the domain. The concept of big ‘C’ and small ‘c’ are also coined by Csikszentmihalyi (1996). The former one indicates that the creativity can make a big change of human culture and society; the latter one indicates that the creativity can be seen in our daily life. To conclude, both Amabile (1996) and Csikszentmihalyi (1996) emphasize the importance of social culture, which means, creativity can only be shown if it can be approved by others in the social culture environment.

However, with the emergence of the computer and the internet, little research has been done on topic creativity that adolescent bloggers present on the Internet, which plays a crucial role in this expanding age of technology. The definition of such creativity up to now still blurred to define. One reason might be that cre-
ativity itself is a complex process from coming out an idea to generate product and work; the other reason might be that creativity requires creative producers to integrate skills and knowledge in different disciplines. Researches about creative processes suggest that personal characteristics inherently have a strong influence on creativity (Amabile, Conti, Lazenby, & Herron, 1996; Oldham & Cumming, 1996; Siau, 1995). Given these previous researches on values and creativity, we believe it is now time for a fresh look at the issue centered on both creativity self-awareness and the peer viewpoint of creativity. The present study is our attempt to focus on finding out the definition of creativity from the adolescence viewpoint, and how adolescent bloggers evaluate creativity themselves and how they evaluate peers.

3. METHODOLOGY

Psychologist have shown an interest in creativity (Prabhu, Sutton, & Sauser, 2008), however, few researches focus on peer-evaluating viewpoint. The core concern of Web 2.0 is grass root spirits. Starting from this point, we are interesting in self-awareness of adolescent bloggers, and, how they evaluate peer’s creativity. Moreover, in this study, it is hoped that the creative evaluating standard can be generated from adolescent bloggers.

3.1. Research Questions

In order to gather grass root definition of creativity from adolescent bloggers, semi-structure interview and peer assessment method were used. Questions of semi-structure interview can be divided into four parts: demographic information, creativity awareness, blog usage behavior, and peer review. This study intends to address the following three research questions:

1. How adolescent bloggers define and aware creativity?
2. How adolescent bloggers consider the relations between blog articles and creativity?
3. How adolescent bloggers evaluate the creativity they and their peers have?

3.2. Data Collection and Participants

In order to gather adolescents’ viewpoints of creativity, peer assessment method was used. Three main approaches were used: adolescent self-define, researcher-define, and peer assessment. None of the participants were blind as nature of the experiment. They were told to participating that we were interested in determing whether how adolescent bloggers aware their own creativity and how they evaluate theirs and peer’s creativity, they were not told, however, what standard of creativity evaluation and types of results were expected. Research procedure is introduced as follows.

(1) Choose participants with criteria

Purposeful sampling and snow ball method are used in this study to collect data from ‘educational blog award platform (http://edublog.tp.edu.tw/edublog/default.aspx)’. Among 870 adolescent bloggers, two groups were divided: 395 are junior high school students and 475 are senior high school students. Criteria of choosing samples are: (a) age of chosen adolescent bloggers should between twelve to eighteen; (b) chosen adolescent bloggers need to have their own blog and continuously maintain more than six month; and, (c) chosen adolescent bloggers need to have at least fifty posted blog articles. Researchers first picked up 10 creative adolescent blogs from each group.

(2) Contact with the five participants

In the beginning, researchers contacted with the 20 chosen adolescent bloggers by leaving messages on their blogs, sending messages via instant message, and sending emails to them. Research purpose and requirements were also
announced. 5 adolescent bloggers replied that they are willing to join the research.

(3) Given an article

After got the responses from the bloggers, each chosen blogger was asked to provide one of their most satisfied blog articles in order to conduct the following survey.

(4) Questionnaire and peer review

The five bloggers were asked to fill out an online questionnaire which elicited information concerning both their blog usage and creativity awareness. The questionnaire consists of three parts: (a) demographic background, including gender, the school s/he is attending right now, blog genre, blog usage experience, and motivation of using blog; (b) creativity awareness, including creativity definition, creativity awareness, and self creativity evaluation; and, (c) peer review, each blogger was asked to evaluate other four peers’ creativity according to their blog articles. Each blogger needed to evaluate the creativity that s/he and the peers might have. Researchers did not discuss the definition of creativity with the participants in advance in order to dig out their thoughts about what is creativity.

(5) Semi-structure interview

After the responses of the questionnaire were received, the researchers conducted semi-structure interview with the participants in order to know the reasons these adolescent bloggers evaluated their and peers’ creativity.

4. DATA ANALYSIS

4.1. Demographic Information and Motivation of Using Blogs

Five adolescent bloggers are involved in this study, three of them are female and two are male. All bloggers indicate that they learn to use blog via self-learning. Furthermore, they have managed their blogs more than two and half years (S1 ~ S4), only S5 manages her blog for only six months. These bloggers post at least five articles on their blogs each month in average. S1 and S3 indicate that they have more than three blogs for curiosity of trying to use different blog platforms. Moreover, except updating their blogs every week, they also read other bloggers’ articles.

Reasons for bloggers start using blog are: (1) functionality. S1 says “because I like the functions this blog platform provides”; S2 says “I feel this blog is easy to use”, and S3 says “it is simple to use”; (2) interactivity. S4 says “because lots of my friends are using this blog platform” and “my friend ask me to join_S4”; (3) parents. S5 indicates “My mother asks me to use a blog in order to participate the contest”; (4) peer’s invitation. Two bloggers choose wretch as blog platform (S2 and S4) mention that they use blogs because they received peer’s invitation. Many blog service providers has the function of connecting to friends, this function enables the bloggers to form a community based on their social relationships.

The bloggers are asked to self-rate their blog genre, as Table 1 shows. Participant S1, S2, and S4 think their blogs belong to text-based genre; S3 thinks her blog is comic-based genre; and, S5 think her blog belongs to photo-based genre, and she further categorizes her blog as genre of creativity. Adolescent bloggers are asked to provide one their most satisfied article. These articles match their self-rated blog genres, which mean if a blogger rates his/her blog as text-based genre, then s/he may provide text-based article as the one to present himself/ herself. S3, however, is different from others. Almost all of her articles are comics; however, the one she chose is text-based article. One hypothesis for this case is that the creativity recognition is still influenced by others’ expectation and/or social value.

Adolescent bloggers are also asked for reasons attracted they continue using blogs. Answers are concluded into four categories: personal aspirations, recognition effects, social...
relationships, and cyber relationships, as Table 2 shows. Regarding personal aspirations, four of adolescent bloggers say that the blog can help them expressing their feelings freely: S2 says “it is convenient to use blog, I can write whatever I want”; S5 says “blog is free to me to write articles”; S4 says “because parents and teachers will not read my blog, so I can express my thoughts on it freely.”

Regarding the recognition effects, Some of them also indicate that using blog can get more attentions: S3 says “the more frequently I post article or update my blog, the more readers I have” and “sometimes I post photos I took on my blog, I got feedbacks which encourage me so much.”; S2 thinks “writing blog on the one hand has more freedom, on the other hand, I can try different ways to present my creativity” and “if you are really a creative person, then you will have a lot of people appreciate your works”. Regarding the social relationships and the cyber relationships, S5 indicates “blog is a channel to me to make friends in the cyber space” and “I read every single comment that people left on my blog and try to respond them all.”

### 4.2. Adolescents’ Definition and Awareness of Creativity

#### 4.2.1. Definition of Creativity

Definition of creativity can easily divided into two types, one is big ‘C’, means the creativity which can change human cultivation or culture, e.g. the Theory of Relativity proposed by Einstein; the other one is small ‘c’, means the creativity which normally be seen in our daily life, e.g. creative commercial products (Csikszentmihalyi, 1996).

Creativity awareness among these five adolescent bloggers are close to the definition of small ‘c’, they think the creativity can be learned through learning: S1 says “creativity can be cultivated, and also nurtured through the process of learning”; S3 says “in the beginning of creating, it is difficult for me to generate creative work, however, I started from imitation. After a period of time, I gradually find my own way to generate creative ideas and works.” Furthermore, continuously writing blog articles helps them express their ideas to the blog readers: S4 indicates “it is difficult to have creative works in the beginning, however, when time passed, I have more ideas and become skillful to write something special”; S2 says “I think only very few people is talented to have creativity, however, in my opinion, creativity can be improved via learning.” Only S5 defines that the creativity is the capability through inherent nature, she says “in my opinion, this kind of creative capability, is part of talented and is hard to imitate.” In general, adolescent bloggers define that the creativity can be improved via learning.

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### Table 1. Demographic information

<table>
<thead>
<tr>
<th>ID</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>School Type</td>
<td>Junior high school</td>
<td>Vocational school</td>
<td>Junior high school</td>
<td>Junior high school</td>
<td>Vocational school</td>
</tr>
<tr>
<td>Blog genre (Self-defined)</td>
<td>Text</td>
<td>Photo/text</td>
<td>Comic</td>
<td>Text</td>
<td>Photo/creativity</td>
</tr>
<tr>
<td>Blog genre (Researcher-defined)</td>
<td>Personal</td>
<td>Personal</td>
<td>Personal</td>
<td>Personal</td>
<td>Personal</td>
</tr>
<tr>
<td>Blog article category</td>
<td>45</td>
<td>18</td>
<td>17</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Average article number</td>
<td>20.88</td>
<td>14.45</td>
<td>5.57</td>
<td>7.08</td>
<td>6.90</td>
</tr>
</tbody>
</table>
4.2.2. Awareness of Creativity

Adolescent bloggers consider creativity is the opposite of plagiarism as S1 says “creativity is a better form rather than plagiarism” and others mentioned that it is important to have personal style: S2 says “creativity is kind of personal style, anything different from others can be seen as a sort of creativity”; S4 says “creativity is a kind of distinctive styles and ideas.” Moreover, they take creativity as a kind of life style, should and must to practice in daily life: S4 says “I think creativity is a kind of living style, besides generating distinctive ideas, it is more important to practice this idea into daily life. For example, I notice every little thing around me in daily life, then I find creativity appear in many ways. Sometimes I find creativity in commercial advertisements, in book titles, in music, in restaurant menus. If we pay attention carefully, creativity can be found in daily life.” and S5 indicates that “creativity is 1% inspiration and 99% learning.”

In the questionnaire, the researchers divide creativity awareness into six sub-scales: self-awareness, peer-awareness, friend-awareness, teacher-awareness, and others (Table 3). Here, “peer” means classmates, “friend” asserts non-classmate peer, “others” indicate not but blog readers or cyber friends. Participants need to rate the sub-scale relevant questions with five-point Likert scale which ranges from 1: strongly disagree to 5: strongly agree.

First question is about creativity self-awareness, all of the five adolescent bloggers rate themselves as a creative person. Regarding peers-awareness, only two of them argue that “I am a creative person in peers’ eyes”, e.g. S2 says “some of my peer are my blog readers, they often read my blogs and encourage me” and S5 says “when I post something new on my blog, they leave comment to me; sometimes they tell me I am a creative person.” However, three of them have not answered this question; their opinions reveal that they never discuss their creativity with their peers. Regarding friends-awareness, two of them strongly agree

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**Table 2. Reasons of using blog**

<table>
<thead>
<tr>
<th>Categories</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal aspirations</strong></td>
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<tr>
<td>Information exchange</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Share emotion</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Spending time</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gather new information</td>
<td>*</td>
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<tr>
<td><strong>Recognition effects</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Play different roles</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Get more attention</td>
<td></td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
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<tr>
<td><strong>Social relationships</strong></td>
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</tr>
<tr>
<td>Increase topic with friends</td>
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<td>*</td>
<td>*</td>
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<tr>
<td>Connect with friends</td>
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<td></td>
<td>*</td>
<td></td>
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<tr>
<td><strong>Cyber relationships</strong></td>
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<td></td>
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<tr>
<td>Make more friends</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Interact with cyber friends</td>
<td></td>
<td></td>
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<td>*</td>
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</tbody>
</table>
that “I am a creative person in my friends’ eyes” (S2 and S5). Regarding teachers-awareness, lots of them unanswered this question. S1 says “my teachers even don’t know I have a blog; I never discuss creativity with them, they think academic performance is more important”, and S2 says “Teachers don’t have their own blogs, so I never discuss my blog with them.” Regarding parents-awareness, S5 says “my parents always encourage me to be creative; they always give me advices regarding my creativity and are proud of me.” Regarding others-awareness, the “others” here represents people who are not classmates and friends of the blogger, but read the blogger’s articles. S2 and S5 strongly argue that in others’ eyes they are creative, e.g. S5 says “some readers leave messages on my blog and ask me when I will post my new drawings” and S2 says “some readers often visit of blog and give me comments, they are interested in photos I took, and also think I am a creative person; some of my readers ask me how to take those photos and ask me to teach them.”

There is some similarity by comparing between the creativity definition of adolescence and researchers (Table 4). Most of these adolescent bloggers define creativity as novel, useful, correct, and valuable, this viewpoint similar to Amabile’s definition of creativity (Amabile, 1996).

### 4.2.3. The Role of Creativity

One blogger said creativity play an important role as best friend in her life (S1), other one said creativity is in need of everyone (As a student major in design, I think creativity is in need of everyone. Who owns creativity can be some excellent person in the future_s2; I love to create, thus, I think creativity is necessary for me. I request myself not to imitate but searching some inspiration base on others’ works_S3). Blogger S4 said creativity help him to encounter problems in daily life, and blogger S5 feels creativity plays an important role in her life, even in the future.

In sum, adolescent bloggers are in agreement of their own creativity, especially blogger S5. Blogs of S2 and S5 belongs to picture and image, and both of them were senior high school students. Suggestion of future research can focus on the relationship between age and creative style, or the influence of creative style on creative awareness. In the part of creative role, adolescent bloggers regard creativity related to their daily life. Moreover, they think creativity is an indispensable element in life.

### 4.3. Relationship Between Creativity, Blog, and Life

The role of blog in adolescent bloggers can be seen as a) Emotional expression (blog is a place for me to express my emotion. I usually wrote something which even cannot to share with my friends or parents_S1; blogs as channel for me to make connection to classmates and friends_S4), b) Establish the relationship (blogs can make it easier for me to make more friends on the web_S5; my blog can be seen as my second home. I get used to browsing my blog everyday when arriving home_S2; blog is not only a place for me to find out solutions when I have difficulties in school, life, or oth-

<table>
<thead>
<tr>
<th></th>
<th>Self</th>
<th>Peer</th>
<th>Friends</th>
<th>Teachers</th>
<th>Parents</th>
<th>Others</th>
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</thead>
<tbody>
<tr>
<td>S1</td>
<td>4</td>
<td>N/A</td>
<td>3</td>
<td>N/A</td>
<td>N/A</td>
<td>3</td>
</tr>
<tr>
<td>S2</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>N/A</td>
<td>N/A</td>
<td>5</td>
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<tr>
<td>S3</td>
<td>4</td>
<td>N/A</td>
<td>4</td>
<td>N/A</td>
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<tr>
<td>S4</td>
<td>4</td>
<td>N/A</td>
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<td>N/A</td>
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<tr>
<td>S5</td>
<td>4</td>
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</tr>
</tbody>
</table>
ers, but a platform for me continues learning and growing_S3).

Talk about the relationship between blog and creativity, bloggers S1 considered that the relationship between blog and creativity equals to the relationship between writer and its creation. Others regarded creativity makes it possible for blog effectiveness become more obviously. It is creativity that enables bloggers to enrich their blogs (It is necessary for a blogger to possess the characteristic of creativity_S4; blog and creativity are complementary_S5). Blogger S3 said that creativity can be shown through blog management and blog usage.

Blog management is a kind creativity, because everyone has their own style. Someone who is interesting in photography, their blogs might belong to the style of photography; people who love biking, their blogs might lot of articles related to biking. Everyone manage their blogs with their own unique creativity and personal style. This is my viewpoint.

### 4.4. Evaluation of Creativity

Each of adolescent bloggers was ask to provide one blog article to represent them. After collecting five blog articles provided by each blogger, they were ask to self-rating and peer assessment about creativity range from 1: strongly disagree to 10: strongly agree. Each of them did not know each other. Figures in diagonal line indicate the score of self-rating (Table 5). Among these articles, article 1, lyric article writing about happiness, got the highest score in the process of peer assessment; article 5, a comic form ending with text explanation got the second high score. Article 5, an exposition article discussed about internet addiction, got lower score than other articles. Reasons might be that this article is much former than others. Moreover, blogger S5 indicated that the purpose of writing the article she chose was for participate a competition. Why S5 chose this article to present as most satisfied article? She replied that because of the consideration of social value. Most of blog articles are emotional and personal related, in other words, more informal. Thus, when we ask S5

<table>
<thead>
<tr>
<th>Researcher / Year</th>
<th>Creativity perspective toward researchers</th>
<th>Creativity perspective toward adolescent bloggers</th>
</tr>
</thead>
</table>
| Torrance (1966)   | *Aroused creative thinking process  
*Creativity is a process of problem-solving | *Creativity almost consisted of everything, and it can help me to solve problems_S4 |
| Csikszentmihalyi (1996) | *Creativity results from the combination of field, disciple, and personal.  
*Creativity can only be recommended by gatekeeper of the discipline. | *Creative work which can represent myself is the one I wrote for the competition_S5 |
| Amabile (1996)    | *Creativity can be shown on the product.  
*Creativity must be recognized as novel, useful, correct, and valuable. | *Creativity is a kind of personality; the ability of generating novel ideas or work is the creativity_S2  
*Creativity is a way of life, which can display in daily life, and enable us a better life_S4 |
| Sternberg (1999)  | *Creativity resulted from the interaction between wisdom, knowledge, thinking style, personality, and environment.  
*A perspective viewing creativity as mystery | *Creativity consisted of 1% inspiration and 99% learning_S5  
*Creativity can be enhanced through learning and practicing_S3 |
to choose an article from the blog, she picks up the one with formal purpose.

Horizontal axle indicated how each adolescent blogger score others. On the one hand, the self-rating score of creativity of blogger S1 was the lowest among the five participants (the self-rating score was 4). Moreover, an average score of peer-rating was the lowest among the five (M = 5.50); On the other hand, the self-rating score of creativity of blogger S4 was the highest among the five participants (the self-rating score was 10), the average score of peer-rating was the highest among the five (M = 7.60).

Generally, the relationship between self-rating and peer-rating can be explained as follows: adolescent bloggers who has more sense of their creativity (high score in self-rating), the more creativity awareness of other peers’ creativity they have (high score in peer-rating); or adolescent bloggers who has more creativity awareness of their peers (high score in peer-rating), more creativity awareness they have on their own (high score in self-rating).

In addition, results of individual evaluation were shown in the following. Article 5 got the highest evaluation result from blogger S1 and S4. Both S1 and S2 regard creativity as the ability to improve living quality or make life better. Meanwhile, article 5 titled “the funny life between my grandmother and I” the author was trying to depict her interesting life in the form of comic, which correspond to the creativity definition of S1 and S4. Thus, article 5 got the highest score from evaluator S1 and S4.

Article 1, titled “Happiness”, got the highest score from blogger S2 and S3. Blogger S1 described her point of view of happiness in the lyrics form. Blogger S2 and S3 regard creativity as a way to present personal style. Recognition for creativity in such awareness, blogger S1 portrayed the picture of happiness in her own way through text. That might the reason why S2 and S3 bloggers rate article 1 as the highest one. S5 rating article 2 and 4 as full marks. Both article 2 and article 4 were written in a poem style. What inference can be made from this fact? From the S5’s blog, blogger S5 prefers using photographic or comics to present her creativity, and the definition of creativity in her mind was combine both inspiration and learning. To conclude, rating result was influencing by the reason and definition toward creativity.

Test of homogeneity of Chi-square test was used in order to test the homogeneity of rating standard among different raters. The result was significant ($\chi^2 = 46.37, p<.05$) that these five adolescent bloggers were not homogeneity in rating. Looking back on the definition of creativity can find the difference of creativity definition between these five adolescent bloggers. For example, blogger S4 defines creativity as the ability of problem solving; S5 defines creativity as the combination between wisdom, knowledge, thinking style, personality, motivation, and environment. To conclude, differences shown in creativity definition significantly influence the way they rating others’ creativity.

### Table 5. Creative works Internet comment

<table>
<thead>
<tr>
<th></th>
<th>Article 1 (Text)</th>
<th>Article 2 (Poetry)</th>
<th>Article 3 (Text)</th>
<th>Article 4 (Poetry)</th>
<th>Article 5 (Comic)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>s1</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>5.5</td>
</tr>
<tr>
<td>s2</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>6.25</td>
</tr>
<tr>
<td>s3</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
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<td>6</td>
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<td>7</td>
</tr>
<tr>
<td>s5</td>
<td>5</td>
<td>10</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>7.6</td>
</tr>
<tr>
<td>Mean</td>
<td>7.5</td>
<td>5.5</td>
<td>5</td>
<td>6.75</td>
<td>7</td>
<td>n/a</td>
</tr>
</tbody>
</table>

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5. DISCUSSION AND CONCLUSION

The purpose of this study is to investigate adolescent bloggers’ creativity, and also trying to investigate their awareness of blog usage, self creativity, and peers’ creativity. This study has taken a step in the direction of defining creativity from the viewpoint of both adolescent bloggers and subculture. To summarize the salient features of the analysis, several findings are of interest. Results are shown that adolescent bloggers define creativity as novel, useful, and valuable, which is close to the creativity definition of Amabile. Moreover, adolescent bloggers regard creativity can be improved by learning. Blog provides a space for them to present their own thoughts and works, and enables them to watch and communicate with others. It is helpful for them to enhance their creativity. Except providing a space for those adolescent bloggers, blog also make it possible for them to make friends in the cyber space. The five adolescent bloggers are all agree that they are creative. In the portion of peer evaluation, generally, pictorial blog genre is inclining to get higher score while the textual genre is tending to get lower score.

The relationship between self-evaluate and peer-evaluate is found in the section of peer evaluation. On the one hand, the higher score one might get in the part of self-rating, the higher score he might use to evaluate others’ creativity; on the other hand, the lower score one might get in the section of self-rating, the lower score he might use to evaluate other in the section of peer-evaluation. In addition, definition of creativity and creativity awareness are also important factors to influence how a person to evaluate creativity. People are tending to appreciate creative works which closer to self creativity definition.

Even though the body of research has the undeniable merit of offering valuable insights into creative subculture from viewpoint of adolescent, it has some limitations. Perhaps future research could examine creativity awareness from different viewpoints, such as psychology, cognition, education, sociology. We are hopeful that future research will provide results which may reflect different aspects of the reality. While this study has its limitations, it is hoped that it can serve as a basis for further related study in adolescence creative subculture.

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