ABSTRACT
Fifty blogs were analysed and classified according to both their content and formal structure. The SOLAT questionnaire, aimed at assessing the right (i.e., intuitive-holistic) vs. left (i.e., systematic-analytical) thinking style, was put online, and blog owners were asked to complete it in order to match their cognitive style to the “style” of their blog. Respondents were also asked some metacognitive questions in order to explore their awareness of the psychological processes that are activated by the blog that they had devised, both in their own and in other people’s mind. Results showed that blog owners are able to use effective communication strategies by differentiating the formal structure of blogs according to the content, but they lack metacognitive awareness about the mental processes activated by the blog. No relation between the blog owner’s cognitive style and blog style was found. Implications for the educational use of blogs are discussed.

Keywords: Blog, Cognitive Style, Media Psychology, Metacognition, Multimedia Learning

1. INTRODUCTION
Today, blogs are a widespread form of communication amongst young people and adults, who can be defined as blog users because they actually own a blog (in other words, they built a blog and manage it) or they are habitual blogs readers. Since a blog is a user-friendly computer-supported artefact that can be easily handled by almost everyone, it can be viewed as an ecological field for exploring spontaneous multimedia and hypertext information processing.
In reason of the high level of personalisation in dealing with such an artefact, the way a blog is devised and managed may be linked to individual cognitive style, that is, the preferred and habitual manner to process information (Antonietti, 2003). Therefore, it is interesting to assess whether blog owners actually personalise the blog they built by arranging the structure of the blog not only according to its content but also in order to match the blog owner’s cognitive style. In addition, it is worth investigating individuals’ metacognitive awareness, that is, to what extent the blog owners are conscious of the mental processes which are activated in other people by the blogs they devised, and, in particular, of the possible match between the features of the blog and the bloggers’ individual characteristics.

This paper addresses the aforementioned questions. In this introduction the theoretical grounds of the empirical study reported here are highlighted. The basic features of a blog are summarised so to make clear the kind of personalisation it implies. It is a kind of personalisation that can be linked to the concept of “cognitive style”, which is hence presented. The possible relationships between blogs and cognitive styles are then discussed. Finally, the issue of metacognition is introduced by stressing the assumed role of metacognitive awareness in blog management.

1.1. Blogs and Personalised Cognitive Processing

A blog (a portmanteau of web log) is a website where entries are written in chronological order and displayed commonly in reverse chronological order. Many blogs provide commentaries or news on a particular subject; other blogs are personal online diaries. The opportunity for readers to leave comments is an important part of many blogs.

A typical blog combines texts and images (sometimes also sounds and music) and includes links to other blogs, Web pages and media related to its topic. Therefore, blog can be conceived as a multimedia artefact and also as a hypertext (Murray & Hourigan, 2008). Such peculiar characteristics make the building and everyday managing of a blog cognitively demanding. The characteristics mentioned above, indeed, “force” people to use specific cognitive strategies while constructing and administering their blogs, and this should promote reflection (Blood, 2000; Colombo & Sala, 2011; Wagner, 2003). For example, anyone who builds and manages a blog is asked to make decisions concerning the sections to be included, the number and typologies of the pictures, their layout, the writing style, and so on (Huffaker, 2005). However, such choices should depend not only on the blog’s content, but also on the cognitive preferences of the blog owners, and hence the blog structure, as well as any kind of artefact, should mirror the author’s cognitive style (Henri, 1992; Xie, Ke, & Sharma, 2010).

1.2. Cognitive Styles

A cognitive style can be defined as the preferred way of thinking (Sternberg, 1997). Such an inclination concerns the peculiar mode of information processing that is applied across different tasks and occurs in a variety of behaviours. Cognitive styles are transferable to different domains: people tend to use strategies that belong to their own preferred cognitive styles when facing different kinds of tasks. In short, cognitive styles concern the general tendency to follow thinking strategies of a certain type more frequently than others. They are not abilities, but rather a way of applying abilities.

The role of cognitive style has been mainly investigated in instructional contexts. Cook, Gelula, Dupras, and Schwartz (2007) argued that adapting instructions to students’ individual style enhances learning, especially in web-based environments. As far as learning from hypermedia is concerned, it has been shown that cognitive styles can be associated to specific browsing patterns (Calcaterra, Antonietti, & Underwood, 2005; Fiorina, Antonietti, Colombo, & Bartolomeo, 2007). Cognitive styles are also good predictors of self-efficacy in learning environments (West, Kahn, & Nauta, 2007).
Amongst the different cognitive styles, the right/left thinking style (Torrance, Reynolds, Ball, & Riegel, 1978) is worth mentioning. It was inspired by the theory of brain hemispheric dominance and it is aimed at distinguishing between the tendency (possibly associated to the right hemisphere) to use a visual-motor code, linked to innovative procedures and intuitive and holistic processing, and the tendency (allegedly associated to the left hemisphere) to prefer a verbal-abstract code, together with analytic and sequential procedures. Even though some data support the biological basis of such a distinction (Fabbri, Antonietti, Giorgetti, Tonetti, & Natale, 2007) and specific cognitive functions can be associated to the two brain hemispheres (Martindale, 1999; Springer & Deutsch, 1997), the right/left distinction has to be meant in a metaphoric sense, that is, right-thinkers cannot be considered as people actually “using” prevalently the right hemisphere, but as showing stylistic profiles which roughly correspond to the features traditionally attributed to that hemisphere (Coffield, Moseley, Hall, & Ecclestone, 2004). Right/left style also includes personality traits (Torrance, 1988): Right-thinkers are imaginative, inventive, enterprising, change-seeking and non-conformist, whereas left-thinkers are realistic, repetitive, settled, planner and conformist. Moreover, cognitive styles associated to hemispheric dominance are related to neuroticism, extraversion, openness and conscientiousness (Zhang, 2006).

1.3. Cognitive Styles and Blogs

Many characteristics of a blog can be related to the right/left thinking style. For example, bloggers are free to build links between the posts or in the main structure of the blog. Such links can be devised either in a serial or in a holistic-reticular way: the first and second solutions mirror the features of the left and the right style respectively. Moreover, left-thinkers, who are free to personalise the structure of the blog, are expected to choose pre-structured templates, whereas right-thinkers are more innovative and may change the basic structure of the blog. The same may be true regarding the choice of the main topic of the blog: Informative topics should be preferred by left-thinkers and imaginative ones by right-thinkers. Also, the use of pictures may differ: Since the right thinking style includes preferences for the visual code, a highest amount of iconic elements should be included in blogs created by right-thinkers.

Recent literature suggests possible links between the use of blog and specific cognitive strategies (Robertson, 2011; Xie & Sharma, 2011). For instance, Kerawalla, Minocha, Kirkup, and Conole (2009) found that the presentational style of the blog contents influences users’ behaviour, suggesting a relation between the organisation of the blog and the preferred approach to blogs. A comparison between the different blogging behaviour of students on two different courses provided insights into how people could adapt their behaviours across different contexts. They appeared to be able to adjust their blogging behaviour to meet their own needs.

Are people aware of the cognitive peculiarities of blogging? In other words, do they, while building their blogs, use specific cognitive strategies depending on their styles, and are they aware of this? The issue of awareness is connected to the topic of metacognition.

1.4. The Role of Metacognition

Metacognition is usually defined as the awareness, knowledge and control of cognitive processes. The first attempts to define the domain of metacognition were made by Flavell (1979), who proposed a model of metacognition whose key concept was “metacognitive knowledge”, which refers to what people perceive and think about how the mind works when engaged in comprehending, memorising and re-elaborating notions.
The role of metacognition in technological environments has been well established (e.g., Cassel, 2002; Cuevas, Fiore, Bowers, & Salas, 2004; Cuevas, Fiore, & Oser, 2002; Kramarski & Mevarech, 2003 Kramarski & Ritkof, 2002). Individuals who possess higher levels of metacognition (namely, who are more aware of the mental processes they are activating) can use technological tools in a more proper and productive way. Liu, Maddux and Johnson (2004) demonstrated that good achievement is associated with awareness of the actual potentialities of the computer programs that are used to support the learning process. On the other hand, technological tools can improve metacognitive skills. Actually, blogs appear to make students more aware of their learning experience (Churchill, 2009; Colombo & Sala, 2011). In brief, new technologies and metacognition seem to promote reciprocal cognitive advantages. Blogs, as previously stated, are devices that allow people to express themselves and to become aware of their own psychological features. Furthermore, blogs induce individuals to manage them according to personal characteristics (Deng & Yuen, 2011; Punteamberak & Kolodner, 2005). For instance, I understand that I can express myself better if I include pictures in my posts. Thus, blogs can help individuals to be aware of their own psychological profiles since they externalise such a profile, thus permitting them to recognise their features as mirrored by what they created in the blog. Finally, blogs, which are a form of narrative in their own structure and aims, foster reflection and introspection, namely, attitudes and strategies which are usually meant as relevant ways to enhance metacognitive awareness. In fact, it has been argued that the narrative format of reflection and communication can foster metacognitive skills (Antonietti, Confalonieri, & Marchetti, in press). Blogs help also to promote self-awareness whereas improving communication. As Lee (2009) pointed out, blogs stimulate the building of interpersonal relationships, as well as personal commitment to online contributions, which are vital to successful intercultural exchanges.

2. AIMS

The present study intended to explore the possibility of applying the concept of “cognitive style” to the use of blogs, an approach which, to our knowledge, has never been applied in this context. Blogs constitute a new, widespread and ecological domain useful to test whether cognitive differences such as styles can emerge. The specific goal was to assess if cognitive coherence could be found in blog construction. Such a coherence is intended both as internal coherence – that is, coherence between the blog’s specific contents and the formal aspects – and as coherence between the structure of the blog and the owner’s cognitive style.

As highlighted above, cognitive styles have been successfully explored in educational settings. However, the personalisation of the learning process that cognitive styles imply has to be accompanied by metacognitive awareness, in order to improve the learning outcomes. In fact, it is not enough to adapt instructional materials and procedures to the students’ learning style; they have to be aware of their own styles so to activate the cognitive resources that individual styles need (Efklides, 2011). Metacognition should be integrated into the cognitive style approach. Bearing in mind that blogs are tools, which can be employed in education and training, it is relevant to consider whether their use is accompanied by an adequate level of metacognitive competence. Thus, the second point of interest of the present study is the metacognitive awareness of the blogs’ owners. To what extent do people realise the mentality they activate while constructing their blog and those activated by visitors?

We hypothesised:

1. A general category/topic effect, expecting people to make choices about the formal structure of the blog which are consistent and coherent with the actual content;
2. A general coherence between the bloggers’ cognitive style and content and the formal structure of their blog (e.g., we expected to find, by examining the blogs, a use of
communication codes that mirror participants’ cognitive style, more visual for right-thinkers and more verbal for left-thinkers);

3. We had no a priori predictions about the degree of metacognitive awareness shown by the blog owners concerning the actual strategy used both at a specific level (e.g., writing a post) and at a general level (e.g., organising the blog structure), even if we could expect a good level of metacognitive awareness in blog users, due to the support in externalising given by the blog intended (as stated above) as a cognitive tool.

3. METHOD AND MATERIALS

3.1. Participants

Fifty bloggers – 28 women and 22 men, aged between 25 and 52 years ($M = 32.5$, $SD = 2.08$) – joined our research: 12 were employed in education, 9 worked in commerce, 8 were office employees, 6 were self-employed, 5 were university students, 4 worked in the public health system and 4 were unemployed (2 participants failed to state their occupation). On the basis of the responses given to questions about the level of ICT expertise, none of the participants was highly competent in any area of computer-supported activities (website construction, multimedia production, software programming, use of word processors, data sheets, and so on). The participants’ levels of expertise and frequency of ICT usage were comparable to the average values of the general population (Antonietti, Calcaterra, Colombo, & Giorgetti, 2003). All participants had been writing in their blog for at least 7 months.

3.2. Procedure

In the first contact email sent to possible participants (see below for details concerning blog selection), the design of the research was described briefly. Contacted people were asked to join the study and to give consent to analyse their blogs. Persons who responded affirmatively were contacted again and asked for formal, written permission to analyse their blog. The blogs of those who answered this second email were included in the analysis and the authors of the blogs were asked to complete the online questionnaire and interview (see details below).

3.3. Materials

3.3.1. Blog

3.3.1.1. Selection

Fifty Italian blogs were analysed. They were selected on the basis that they belonged to the same anchor site, so to guarantee that all blog users involved in the study had the same options and the same constraints when building and administrating their blogs.

By browsing the categories listed in the anchor site, the blogs which clearly belonged to one of the selected categories illustrated below were chosen. However, those that appeared to mix different contents were excluded.

A further selection led us to exclude blogs that had more than one author, because it would not be possible to relate the features of the blog to the owner’s individual cognitive style.

In the final selection, blogs that were not regularly updated were excluded, in order to ensure that the current features of the analysed blog were actually managed by the person who completed the questionnaires.

3.3.1.2. Content Categories

The selected blogs were divided according to 5 content categories. Categories were derived from the analysis of the blogs in the Italian blogosphere and compared with blog categories presented in the available literature (Murray & Hourigan, 2008):

1. Personal diary: Blogs that describe the personal everyday life of the owner;
2. Commentary: Blogs providing comments on different current news;
3. Amusement: Blogs trying to entertain visitors, providing distractions and jokes;
4. **Specific topic:** blogs providing specific information on a focused topic, such as cooking, photography, music;

5. **Politic:** blogs discussing political topics.

The 5 categories were balanced so to obtain 5 subsamples with an equivalent number of blogs (10 for each category) of similar length.

### 3.3.1.3. Formal Structure Categories

Blogs were further analysed according to different categories concerning their formal structure:

1. **Use of images:** The number of images and image typology were recorded, according to Mayer’s (1993) classification. Images were classified as Decorative (pictures that are not directly relevant to the text), Representative (they portray one element that is mentioned in the text), Organisational (they reflect relations amongst elements in the text), Explanative (they explain how something – e.g., a system, a process, a mechanism – works);

2. **Relations between text and images:** The location of the pictures in relation to the corresponding text was taken into account, in order to determine whether Mayer’s (2001) spatial contiguity principle (according to which students learn better when corresponding words and pictures are presented near rather than far apart) was or was not followed;

3. **Posts:** Each analysed post was assigned to one of the following 5 categories according to its subject: topic, autobiographical, commentary, question/provocation, reflective;

4. **Main emotion:** Posts were categorised according to the emotion that was communicated (joy/happiness, fear/anxiety, sadness/delusion, anger, shame). Two independent judges evaluated the main emotion of each considered post. Ambiguous or controversial posts were discussed. The inter-rater agreement was satisfactory ($k = .84$);

5. **Self-indicators:** By using Bruner’s (1998) categories, the blogs were classified as containing coping (expressions that clearly indicate action, commitment, resources, appraisal), reflective (the act of reflection and the use of mental verbs) or social (social reference and social localisation) self-indicators.

### 3.3.2. SOLAT Questionnaire

The blog owners completed the SOLAT (Style Of Learning And Thinking) questionnaire, which we placed on line, in order to match their cognitive style with the “cognitive style” of their blog. The inventory (Torrance, 1988; Torrance et al., 1978) consists of 28 items. In each item, respondents could choose one of two statements, both, or neither. One statement describes an approach that is characteristic of the left mode of thinking and the other one a right-thinking approach. Choosing both or neither statements is assumed to correspond to the integrative mode of thinking. Score 1 is assigned to the selected statement, so that three final scores, corresponding to each stylistic profile (left, right and integrated), can be computed. On the basis of such scores, individuals were classified as left-, integrated- or right-thinkers. Acceptable psychometric characteristics (i.e., Cronbach’s Alpha and test-retest reliability on the one side and coherent factorial structure in the other) of SOLAT have been documented (Albaili, 1993; Torrance, 1988; Torrance et al., 1978). This was true also for the Italian version of SOLAT we applied (Antonietti, Fabio, Boari, & Bonanomi, 2005).

### 3.3.3. Metacognitive Awareness Questionnaire

We asked participants general questions aimed at exploring metacognitive awareness (see the complete questionnaire reported in Appendix). To devise a reliable online version of a metacognitive questionnaire, aiming at collecting answers online and at facilitating the
answering procedure, in a pilot study we asked a separate sample of 30 authors of other blogs (belonging to the same categories considered in the study) to respond orally to the questions. Responses were recorded and categorised so to devise, for each question, the set of the possible answers that we inserted as multiple choices, which can be read in the Appendix.

Questions explored the strategies that persons were believed to use/have used in building their blog. Comparing those answers, on the one side, with the actual features of the blogs and, on the other side, with the SOLAT score, should return indication about the bloggers’ metacognitive awareness. To be more precise, the aim of the questions was to use participants’ answers regarding their strategies as comparison term for the actual strategies (derived from blog analysis) and for the strategies they should use according to their cognitive style.

4. RESULTS

Table 1 reports the mean values recorded by analysing blogs and by distinguishing their different kinds of contents. As far as the types of pictures included in the blogs were concerned, only data concerning Decorative images were reported, since significant differences due to the content of the blogs failed to emerge in the other types of pictures.

Data confirmed the first hypothesis, highlighting a general effect depending on the content of the blog, so supporting the notion that the authors of the blogs were actually able to differentiate the formal structure according to the content.

Thirteen ANOVAs (see Table 2) were computed comparing the scores of different blog categories with reference to image typology (number of images per typology), the relation between text and images (number of images that followed the coherence principle), posts’ content (number of posts for each content typology), the main emotion communicated by the posts (the number of posts per each emotion considered) and the use of self-indicators (number of self-indicators per each type).

A first difference emerged in the use of Decorative images amongst the blog categories. Post Hoc Turkey-HSD test showed a significant difference between Specific Topic and Amusement blogs: in the latter Decorative images were used more frequently. The spatial contiguity principle was also differently observed amongst blog categories and, according to Post Hoc Turkey-HSD test, in the Amusement blogs the spatial contiguity principle was followed less frequently than in the other kinds of blogs.

As expected, marked differences emerged when considering the content of the posts. Topic posts were more frequent in the Specific Topic blogs; Autobiographical posts were more frequent in Personal and Topic blogs; Commentary posts were more frequent in Political and Commentary blogs than in other types of blogs. Reflective posts were more common in Political blogs than in Personal, Topic and Amusement blogs; Amusement posts were more common in Amusement blogs than in the other blogs.

Different blog categories appeared also to be associated to different emotions. Positive emotions (joy/happiness) were more evident in Personal, Amusement and Commentary blogs. Sadness/delusion were elicited more often in Personal and Commentary blogs. Anger was experienced more in Political blogs.

It was also found that the use of self-indicators (coping, reflective and social) differed amongst categories. Coping self-indicators were more evident in Personal blogs and less present in Specific Topic blogs. Reflective self-indicators occurred more in Personal and Commentary blogs. The same was true for social self-indicators.

Cross-tabulation between blog categories and answers to the metacognitive questions were also computed. Answers to open questions were
Table 1. Descriptive statistics of the variables concerning the features of the analysed blogs according to the content categories

<table>
<thead>
<tr>
<th>Variable</th>
<th>Blog Type</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decorative Images</td>
<td>Personal</td>
<td>8.40</td>
<td>5.62</td>
</tr>
<tr>
<td></td>
<td>Political</td>
<td>3.50</td>
<td>2.62</td>
</tr>
<tr>
<td></td>
<td>Topic</td>
<td>12.22</td>
<td>13.38</td>
</tr>
<tr>
<td></td>
<td>Amusement</td>
<td>26.20</td>
<td>26.91</td>
</tr>
<tr>
<td></td>
<td>News</td>
<td>12.80</td>
<td>11.05</td>
</tr>
<tr>
<td>Observance of Spatial Contiguity Principle</td>
<td>Personal</td>
<td>5.70</td>
<td>3.37</td>
</tr>
<tr>
<td></td>
<td>Political</td>
<td>9.25</td>
<td>6.39</td>
</tr>
<tr>
<td></td>
<td>Topic</td>
<td>19.11</td>
<td>14.95</td>
</tr>
<tr>
<td></td>
<td>Amusement</td>
<td>29.60</td>
<td>29.54</td>
</tr>
<tr>
<td></td>
<td>News</td>
<td>14.20</td>
<td>13.76</td>
</tr>
<tr>
<td>Topic of the Posts</td>
<td>Personal</td>
<td>0.10</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>Political</td>
<td>4.00</td>
<td>4.11</td>
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<tr>
<td></td>
<td>Topic</td>
<td>12.56</td>
<td>6.08</td>
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<tr>
<td></td>
<td>Amusement</td>
<td>3.20</td>
<td>2.30</td>
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<td></td>
<td>News</td>
<td>0.50</td>
<td>0.85</td>
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<tr>
<td>Autobiographical Posts</td>
<td>Personal</td>
<td>14.00</td>
<td>2.98</td>
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<tr>
<td></td>
<td>Political</td>
<td>0.25</td>
<td>0.46</td>
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<tr>
<td></td>
<td>Topic</td>
<td>2.33</td>
<td>4.18</td>
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<td></td>
<td>Amusement</td>
<td>5.10</td>
<td>4.15</td>
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<td></td>
<td>News</td>
<td>5.40</td>
<td>2.63</td>
</tr>
<tr>
<td>Commentary Posts</td>
<td>Personal</td>
<td>3.00</td>
<td>2.40</td>
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<tr>
<td></td>
<td>Political</td>
<td>6.75</td>
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<td></td>
<td>Topic</td>
<td>1.56</td>
<td>2.55</td>
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<td>Amusement</td>
<td>2.00</td>
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<td>News</td>
<td>7.40</td>
<td>3.03</td>
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<tr>
<td>Reflective Posts</td>
<td>Personal</td>
<td>2.70</td>
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<td>Political</td>
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<td>News</td>
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<tr>
<td>Amusement Posts</td>
<td>Personal</td>
<td>0.20</td>
<td>0.42</td>
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<tr>
<td></td>
<td>Political</td>
<td>1.13</td>
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<td></td>
<td>Topic</td>
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<td>0.33</td>
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<td></td>
<td>Amusement</td>
<td>5.50</td>
<td>7.26</td>
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<tr>
<td></td>
<td>News</td>
<td>0.90</td>
<td>1.91</td>
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classified in order to be analysed. For example, considering the first question (Which was your main aim while building your blog and why?) typical answers were:

- “I wanted people to be aware of health risks of high sugar diet” (1)
- “I’m writing a blog to cheer people up. Since life is so stressful, I want to make them smile” (2)
• “The main idea under my blog is to share my knowledge about photography with other people who love artistic pictures, and explain technical tricks to improve their technique” (1)
• “I believe that my life is better than a novel. So, by writing a blog I want readers to be part of this novel!” (2)

Those answers were reduced to two categories: (1) giving people clear and complete information (52%) and (2) entertaining readers (48%).

Coherence amongst blog contents and users’ aim was tested and it appeared that writers of Political and Topic blogs declared that their main goal was to give people clear and complete information, whereas the others tended more to entertain their readers ($\chi^2 (4, N = 46) = 15.99, p < .005$). No other significant relation between users’ answers and blog categories was found, highlighting a possible lack of metacognitive awareness concerning strategies that were actually effectively used by blog writers.

As far as the administration of SOLAT to our sample was concerned, we found distributions of scores that approximated normality and were within the range found in the Italian validation study (Antonietti et al., 2005). Our second hypothesis was not confirmed: No significant relation between cognitive styles and blog features was found. We computed a series of ANOVAs comparing the scores of the bloggers, classified as right/left/integrated-thinkers on the basis of SOLAT scores (according to the Italian norms: Antonietti et al., 2005), with reference to image typology (number of images per typology), relations between text and images (number of images that followed the coherence principle), post content (number of posts per each content typology), main emotion communicated by the posts (number of post per each emotion considered) and use of self-indicators (number of self-indicators per each type) were computed. No significant differences emerged. The same ANOVAs were computed with 2-level independent variables instead of 3-level independent variables, leaving out the subjects that had been classified as

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<thead>
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<th>Table 2. ANOVAs results</th>
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<td>Respect of multimedia principles</td>
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integrated thinkers in order to test clearly two distinct groups. Again, no significant differences emerged.

We also correlated the raw SOLAT scores with blog indices, finding no significant correlations.

Cross-tabulations between users’ cognitive styles (categorised as right, left or integrated) and answers to metacognitive questions were also computed. No significant associations emerged.

5. DISCUSSION AND CONCLUSION

The present study presents a few limitations, basically due to the sample size, that was not as large as would had been optimal for a between subject design. This limitation was due to the difficulties of involving real bloggers in a complex research, and to the long amount of time requested to manually analyse the blogs. Moreover, working with variables that had to be considered separately (and not within a general model like a MANOVA) could have increased the chance of committing Type I Errors, even if statistics were run with this awareness and by trying to avoid any misreading of the data. Another limitation derives from the focus on Italian blogosphere - probably a cross-cultural analysis would have led to different results. This could be the theme of an interesting follow-up study.

Even with these limitation, this research project, aimed at exploring the cognitive dimension underlying blogs, highlighted that people act strategically while designing their own blogs, by differentiating communication strategies and specific contents according to blog general category and by adhering to these lines. Yet, they appear not to be aware of this strategic use. Moreover, they do not create their blogs according to their cognitive style. These findings support the notion that people are aware neither of the strategies they actually use, nor of their own cognitive peculiarities that could probably lead them to improve the effectiveness of blog communication.

Blogs – which are widely popular amongst the new generation and possess cognitive potentialities able to enhance cognition, such as their narrative structure and the multimedia characteristics previously mentioned, and may constitute a training field to potentiate different cognitive strategies such as right vs. left style – can be regarded as a motivating activity for students, a mental “gym” to test and exercise cognitive and communication skills. Blogs may also become a pleasant everyday activity that helps students to reflect on their cognitive processes, and which encourages them to monitor and control their mental strategies in a more effective way, but not if users are left alone in managing them. Actually, the results of the present study showed that persons were not aware of their cognitive peculiarities, and hence, did not rely on them when writing a blog. If individuals are not aware of the mental processes which blogs activate, all the potentialities that this instrument has remain “inert”. Our study aimed to underscore this point, preparing the ground for greater awareness and more effective use of blogs. The findings supported the idea that blog use is mainly a spontaneous activity lacking correspondences with the user’s cognitive style and metacognitive awareness. This leads us to believe that it is naïve to propose the introduction of blogs in instructional and training settings by simply involving learners in reading/using blogs. Instead, attention should be paid to fostering an understanding of the mental processes involved in blog use, so that learners can autonomously regulate their strategies to match their cognitive style. A reciprocal link between the educational use of ICT within a Constructivism theoretical framework is documented in literature (e.g. Adams, 2011; Wang, 2009). Nevertheless, referring specifically to blogs, is this cognitively possible?
To answer this question, it may be useful to start from the weakness of educational use of blogs: Actually not all of the studies on blogging yielded enthusiastic results (Deng & Yuen, 2011). For example, in their exploration into the potential of blogs for peer learning and peer support, Hall and Davison (2007) found that although blogs fostered positive and productive exchanges of peer support, the evidence for reflective conversation was not compelling. Xie, Ke, and Sharma (2008) reported similar problems in their study on peer feedback via blogs. Irrespective of the fact that the overall level of students’ reflective thinking increased over time, peer feedback to each other’s blogs did not promote reflective thinking as expected.

Yet, considering the whole corpus of research projects exploring the effectiveness of blogs, we think that the answer is positive: Since the effectiveness of shared communication in enhancing cognitive performances has been reported in several researches (Gaza, 2002; Henning, 2003), it is possible to hypothesise that a more cognitive centred use of a blog could be useful, especially in learning or structured contexts. In such a context, blogs become a motivating field to help students to reflect upon their cognitive activities and to monitor and control them in a more effective way. They can also be used in classroom to teach students transferable cognitive abilities and to promote a more aware use of their peculiar strategies (for example, a blog in which students and teachers can discuss their learning experiences, share advice, discuss problems; and a thematic blog, linked to a specific discipline or topic, used to help students to reflect on their naive theories). Alternatively, blogs can be used to support homework, that is to promote active or cooperative learning, or to help students to reflect on their naive theories. 

REFERENCES


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APPENDIX

Metacognitive Questionnaire

Which was your main aim while building your blog and why?

In your opinion, what do readers think about your blog, and why?

In your opinion, what do readers like most about your blog, and why?

How did you choose the graphical aspects of your blog?
- I impulsively choose the one that struck my attention
- The most coherent with the blog’s contents

On which elements did you focus when choosing the graphical elements?
- Colors, graphical aspects (columns, widgets, etc.)
- Main functions available

What do you like most about your blog?
- Graphics, images, links
- Texts
- Other

Why?

What would you change in your blog?
- Graphics, images, links
- Texts
- Other

Why?

Please, name a blog you especially like and explain why.

Why?

Did you add any personalized box in your blog?
- Yes
- No
If you answered “yes”, please specify which kind of box.
- Images
- Videos
- Links
- Text (poetry, quotes, etc.)
- Animations
- Music
- Blog widgets (to count or map visitors, to build a tag cloud, etc.)
- Other

Why?

Why did you begin a blog?
- To share my ideas
- To communicate with other people
- Because I was bored
- To try a new experience
- Because people talk about blogs
- To give voice to a part of my personality

Should you be asked to link your blog to one of the following categories which one would you choose?
- personal diary
- commentary
- amusement
- specific topic
- politic

If you had to rate on a five-point scale your satisfaction as a blogger, which score would you assign?