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Asking and sharing information in the blogosphere: The case of slimming blogs

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1. Introduction

A blog can be defined as a frequently updated website consisting of dated entries arranged in reverse chronological order (Walker, 2009, p. 19). Blog postings are primarily textual, but they may also contain photos or other multimedia content. Blogging is socially interactive and community-like in nature because many blogs allow readers to post comments to individual entries, giving rise to conversational exchanges on the blog itself. However, as Herring, Scheidt, Wright, and Bonus (2005, p. 161) have pointed out, author and reader roles are different in blogs and unmoderated newsgroups, for example. Blogs allow limited exchanges (in the form of comments), while the blogger retains ownership of, and ultimate control over, the blog's content. Thus, unlike in unmoderated newsgroups, the blogger can delete individual comments. Often this functionality may be useful for the blogger in order to weed out spam messages and ads, for example.

Blogs have opened the door for ordinary users to create and share content on the Internet. So far, researchers have paid insufficient attention to these Web 2.0 forums of in their studies of everyday life information seeking and sharing in particular. However, there are a few contributions indicating the potential of Web 2.0 in this field. For example, Oh, Oh, and Shah (2008) demonstrated that community-based questioning and answering services allow people to ask questions and receive answers from their fellow users online. Interestingly, as the present study suggests, blogs may also be used for these purposes, though in a different way.

The present study fills the gap in research on the use of Web 2.0 forums by exploring how people use interactive blogs in the context of slimming, or weight-loss, efforts. Focusing on blogs is well-founded for two main reasons. First, there is a dearth of empirical knowledge on the ways in which people use blogs in the context of everyday life information seeking and sharing. Second, the study is an opportunity to identify the specific features of blog use compared to more traditional online forums, such as the electronic lists and discussion boards in the field of healthcare. In order to strengthen the focus of the present investigation, the focus is solely on blogs themselves and has made no attempt to review the importance of blogs compared to other sources of health information (for studies everyday information behavior related to health, see, for example, Eriksson-Backa, 2003; Harris, Wathen, & Fear, 2006; Nicholas, Huntington, Jamali, & Williams, 2007).

The subject area slimming, is significant since in Western countries in particular, a growing number of people struggle with problems related to weight and obesity. To make their slimming efforts more effective and to reduce health risks related to being

overweight, people tend to seek information about diet and physical exercise (Bar-Ilan, Shalom, Shoham, Baruchson-Arbib, & Getz, 2006). Recently, blogs focused on slimming issues have become increasingly popular as forums of information seeking and sharing. For example, in October 2009 Blogcatalog (2009) identified almost 1,900 English-language blogs focused on weight loss. Since blogs represent a relatively new phenomenon, however, previous studies have not reviewed their use in sufficient detail.

2. Problem statement

The major research problem addressed in this study concerns the extent to which blogs are used as interactive forums in which people can seek and provide information. Since interactivity is seen as a distinct characteristic of blogs (Walker, 2009, pp. 21-22), it is important to explore the nature of such interactivity in greater detail. To this end, the present study makes use of Interaction Process Analysis (IPA) developed by Robert F. Bales (1950). As specified in section 5.2. below, IPA enables a detailed study of the acts constitutive of interaction in small groups in particular. In interaction, such acts serve four major functions:

- showing positive emotional reactions,
- showing negative emotional reactions,
- asking questions, and
- providing answers.

From the perspective of the present study, the functions of asking questions and providing answers are particularly intriguing because they indicate the articulation of information needs and attempts to share information. The study of emotional reactions is also relevant since the affective tone of the words used in the messages may have influence on how the bloggers and blog readers ask and share information. Overall, IPA provides a sophisticated framework in which to analyze the characteristics of information needs and information sharing in the context of computer-mediated communication.

3. Research questions

Drawing on the ideas of IPA reviewed above, the present study addresses the following research questions:

- To what extent does the interaction between bloggers and blog readers constitute acts that indicate positive and negative emotional reactions to the issues discussed in the blogs?
- To what extent does such interaction constitute acts that indicate asking and sharing information?

4. Literature review

4.1. Blogs and their use

With the growing popularity of blogs, the number of studies on blog use has rapidly increased (for recent overviews of blog use studies, see Aharony, 2009, pp. 174-175; Kjellberg, 2009; Schmidt, 2007, pp. 1409-1410). These studies have focused on a variety of issues, including the sociodemographics and motives of bloggers, the role

of blogs in journalism, and blogging about political topics (Herring et al., 2005). A 2006 survey revealed that about 8% of Internet users age 18 and older reported keeping a blog, and 39% of users reported reading blogs (Pew Internet & American Life Project, 2006). General surveys of these kinds have revealed that the majority of blogs are of the personal journal type, which deal with the bloggers' personal experiences and reflections (Schmidt, 2007, pp. 1409-1410). On the other hand, quantitative studies have indicated that most blogs attract modest numbers of visitors. Although technically available for the world to see, most blogs are highly personalized diaries written for small, select online communities (Gunter, 2009, p. 123).

Nardi, Schiano, Gumbrecht, and Swartz (2005) investigated the motives of blogging. Based on interviews with 23 bloggers, they found that blogging is driven by five major motives: to update others on activities and whereabouts; to express opinions to influence others; seek others' opinions and feedback; to "think by writing;" and to release emotional tension. These drivers were not mutually exclusive, however, since some bloggers had more than one motive. Later studies have identified additional drivers of blogging, such as entertainment and personal advancement (e.g., Li, 2007).

So far, the number of studies focusing on the blog use in everyday contexts such as healthcare is very low. Kovic, Lulic, and Brumini (2008) interviewed 197 bloggers for English-language medical blogs who had posted within the previous month. The study revealed that sharing practical knowledge and skills, as well as influencing the way other people think, were major reasons for blogging among the medical bloggers. Chung and Kim (2008, pp. 302-304) showed that cancer patients and companions found blogging to be most helpful for emotion and information sharing, followed by problem solving and prevention and care. In addition, cancer patients and their companions reported gaining information through their blogging activities and also found the information to be satisfactory.

4.2. Information needs and sharing in the context of slimming

Obesity is becoming one of the largest public health problems in Western countries in particular. National surveys indicate that more than 65% of adults are overweight or obese and data indicate that this upward trend is continuing (Fraze & Wong, 2008). The negative health outcomes associated with obesity include high blood pressure, type 2 diabetes, heart disease and stroke, arthritis, and certain types of cancer. The primary way to prevent and reduce the prevalence of obesity is to make lifestyle changes that include diet and physical exercise. Given the health risks of excess weight, slimming may be perceived as a matter of individual responsibility (Loader, Muncer, Burrows, Pleace, & Nettleton, 2002, p. 15). People who embark on dieting must have an understanding of the health risks and benefits of losing weight. If people lack such knowledge, there is little reason for them to change habits they enjoy, such as eating high-fat food (Bar-Ilan et al., 2006).

Bar-Ilan and her colleagues (2006) investigated information seeking practices of overweight people by interviewing about 50 Israeli women aged 25-55. The study indicated that weight loss and/or maintenance behavior is a lifetime process with distinctive stages. In the initial phase, the individual is sometimes unaware of the fact that he or she is gaining weight: This stage can be called the creeping kilograms stage.

It could be useful to the person in this phase to have access to general information regarding health hazards, healthy lifestyle, and stories of friends in a similar situation who have taken action. In the second phase, the individual becomes aware of the problem, and in this phase the major role of information is to help the individual understand the positive effects of weight loss. In the third phase, there is some clearly marked turning point in which the overweight individual becomes motivated enough to decide that he or she has to handle the problem. The turning point may be a heart attack of an overweight relative. In this stage the individual either collects new information or recalls information absorbed during one of the previous stages. In the fourth phase, the individual begins to apply procedural knowledge on how to fight excess weight. In case the specific procedure is unsuccessful, he or she may despair and relapse to a previous stage. Finally, phase five reveals whether the individual succeeds. If the weight loss is not as much as desired, the individual goes into the maintenance stage in which he or she needs information on how to maintain weight and about the advantages of healthy lifestyle.

Based on analysis of a sample of 490 postings, Eichhorn (2008) analyzed the type of social support provided, the strategies used to solicit social support, and the themes on the top five Yahoo! eating disorder discussion boards. Results showed about 30% of the supportive messages provided informational support, while 12% of the messages offered instrumental support (Eichhorn, 2008, pp. 72-74). Informational supportive messages included, for example, "a doctor can help you with your mood swings," while examples of instrumental support included "try drinking the sparkling water b/c the fizz fills you up." Of the messages that solicited support, shared experiences accounted for a little over half (52%) of the messages, followed by requesting information (25%) and self-deprecating comments (15%). Examples of requesting information messages included, "How many calories can you burn off running for 3 hours?" Examples of self-deprecating message postings included, "Grrrrrr why don't I have any control, I am so incredibly powerless. I hate myself." About 20% of the messages fell in the positive affect category. Examples of positive affect included, "good luck Tammy, you are going to do great." Next, the coping with weight (14%) category included messages such as, "I am up 6 lbs and I am terrified." Finally, recalling symptoms (13%) referred to messages such as "I constantly think about food and I am consumed by my scale. I wish I knew how to just make myself better."

5. Data gathering and analysis

5.1. The collection and nature of the empirical data

The empirical data were gathered in summer 2009 from Finnish blogs focused on slimming. Purposive sampling was employed because the goal of the study was to make inferences about the processes of interaction taking place in the blogs rather than the size of the blogosphere or individuals active in blogging. More specifically, following Hayes (2005, p. 43) and Gobo (2006, p. 414), no random sampling was taken because the representativeness of the sample was evaluated by considering the variance of interaction processes instead of considering the variance of the individuals who contribute to such processes. The blogs were identified from a list of Finnish language blogs (<http://www.blogilista.fi>). By using keywords such as "slimming" and "weight loss," 644 individual blogs were identified. To obtain a preliminary picture of the slimming blogs, a sample of 50 blogs with most recent updates were selected from

this list. The preliminary reading disclosed a considerable variation with regard to content and length of individual postings, as well as the ways in which readers commented on them. Many of the blogs appeared to be marginal from the perspective of the present study. First, there were blogs in which slimming efforts were given secondary attention only, alongside topics such as recipes. Second, there were a number of slimming blogs focusing on eating disorders, e.g., anorexia. Third, many blogs were irrelevant for the present study because no reader had commented on the postings. Fourth, some blogs had been started so recently that the number of postings had remained very low. Finally, the list included a few blogs that were not publicly accessible because a password was required from readers.

To identify blogs that would better serve the ends of the study, I specified sampling criteria. Blogs to be taken into the empirical analysis should:

- be publicly accessible;
- primarily focus on the slimming issues;
- contain at least 10 postings and 30 comments that show interaction between bloggers and readers commenting on the postings; and
- contain postings that cover a sufficient period of time in order to reflect the pursuance of the slimming project. The period should cover at least one month; however, the period should not exceed six months because a longer sample frame would result in a disproportionately high number of postings and comments.

Of the 50 blogs selected for the preliminary sample, eight blogs met the above criteria. The sample of eight blogs appeared to be large enough to draw a good qualitative and indicative quantitative picture of the nature of interaction in these forums. As to the qualitative analysis, the number of postings and comments appeared to be sufficient because the data became saturated. Thus, it became evident that the analysis of additional blogs would not have essentially changed the qualitative picture. As to the quantitative study, the data were sufficient for the needs of descriptive statistics, that is, the determination of percentage distribution of the IPA categories.

The period of time covered by the blogs varied from six months (January 5 -June 30, 2009) to five weeks (May 19 - June 23, 2009). The blogs contained 489 postings and 1,117 comments submitted to the blogs' discussion areas. Thus, on average, a posting attracted two comments. Of the 1,117 comments, about 67% were written by blog readers and 33% by bloggers. In individual blogs, the share of comments submitted by the blogger varied from 19% to 38.7%. Altogether, 108 blog readers contributed by writing comments. The number of postings ranged from 14 to 125 per blog. The lowest number of comments per blog was 35 and the highest 297. In general, the comments were shorter than postings; typically, a comment was comprised of three to four sentences. However, some comments contained only a few words, especially in cases in which the commentator presented thanks to the blogger or fellow commentators.

Background data provided by the bloggers revealed that all of them were females. Apparently, the majority of the blog readers were females, too, even though their nicknames or pseudonyms were not necessarily gender-specific. However, in most

cases, the gender of the readers could be easily inferred from the content of their messages. Some of the commentators presented themselves as mothers, for example.

5.2. Data analysis

The postings and comments were first transferred from the blogs to a separate file. Then, they were coded inductively by identifying the major issues constitutive of the content of the slimming project. For example, these issues included diet and problems faced in the slimming efforts. Thereafter, to study the nature of interaction in blogs, the category system of Interaction Process Analysis (IPA) developed by Robert F. Bales (1950) was employed in the coding. IPA was originally developed to examine problem solving discussion groups set up for research purposes in a laboratory setting. However, IPA has been used in research on various different types of face-to-face encounters, including naturally occurring ones (Peräkylä, 2004, p. 3). Importantly, as demonstrated by Rice and Love (1987) and Schoch and White (1997), IPA can also be used in the study of interaction taking place in computer-mediated communication forums.

Bales (1950) conceptualized the interaction process as an interplay of acts that in IPA are described by a theoretically grounded category system (Peräkylä, 2004, p. 2). IPA consists of 12 distinct acts. The purpose of IPA is to identify the nature of each separate act in ongoing group interaction. The individual acts are constitutive of diverse functions (or functional areas) of interaction. The classification of IPA categories is presented in Table 1.

Table 1. The category system of Interaction Process Analysis (Bales 1950, p. 258)

| Functional area of the act | IPA Category | |
|--|--------------|--|
| A. Socio-emotional area: positive reactions | 1 | Shows solidarity, raises other's status, gives help, reward |
| | 2 | Shows tensions release, jokes, laughs, shows satisfaction |
| | 3 | Agrees, shows passive acceptance, understands, concurs, complies |
| B. Task area: attempted answers | 4 | Gives suggestion, direction, implying autonomy for other |
| | 5 | Gives opinion, evaluation, analysis, expresses feeling, wish |
| | 6 | Gives orientation, information, repeats, clarifies, confirms |
| C. Task area: questions | 7 | Asks for orientation, information, repetition, confirmation |
| | 8 | Asks for opinion, evaluation, analysis, expression of feeling |
| | 9 | Asks for suggestions, direction, possible ways of action |
| D. Socio-emotional area: negative reactions | 10 | Disagrees, shows passive rejection, formality, withholds help |
| | 11 | Shows tension, asks for help, withdraws out of field |
| | 12 | Shows antagonism, deflates other's status, defends or asserts self |

Each of the four functional areas is constituted by three acts depicted by IPA categories. For example, the socioemotional area includes categories such *shows solidarity*, while the task area entails categories like *asks for orientation and information*. In IPA, the researcher's task is to find out how frequently acts belonging to each category occur in the encounter that is being examined. By examining how frequently acts fitting different categories take place in relation to each other, and how the acts belonging to different categories are distributed among the participants, the researcher aims to describe the nature of interaction characteristic of it (Peräkylä, 2004, p. 2).

In the present study, the unit of coding was an individual issue discussed in a posting or comment. A posting or a comment is what one person says about an individual issue in a message submitted to the blog, regardless of whether the message contains a word or multiple paragraphs in length (cf. Eichorn, 2008, p. 70). In other words, such articulations focus on the meaning of an issue as a unit of thought in context. A posting or comment was coded only once for every topical category (for example, difficulties encountered in the slimming efforts) or IPA category (for example, "gives suggestion") once it was identified for the first time in the message. In long postings in particular, it was not unusual that the same issue or IPA category was identified in several segments of the same message. In these cases, once a posting or comment was coded for a category, other instances were simply ignored. Under these guidelines it was possible for one posting or comment to be coded in all IPA categories but never to be coded twice in the same category (cf. Schoch & White, 1997, p. 282).

In order to enhance the consistency of the coding, the material was read several times by the present author. Careful reading of the material was particularly significant since multiple coders were not available. As a result, the initial coding was refined until there were no anomalies. In refining the coding, the main difficulty concerned the relationship between the concepts of information and opinion, as well as opinion and suggestion, which are IPA categories 4-9. For example, category 4 stands for giving suggestion, while Category 5 deals with giving opinion, and Category 6 is giving information. The problem was solved by drawing on Wilson's (1981, p. 3, 5) definition that includes facts, opinion, and advice as forms of information. Facts are assumed to be free of value judgments, whereas such judgments affect advice and opinion. On this basis it was decided that information concerned only factual (not necessarily true) or potentially verifiable (testable) observations or experiences such as, "I weighed this morning 92 kilos." In turn, opinion referred to attitudes, beliefs, and value-based judgments, such as, "In my view, her book on low caloric diet provides nothing really new." Finally, the concept of suggestion, distinct from opinion - was understood as being neutral in emotional tone. and it was confined to dealing with requests or provision of guidance in the problem-solving process, such as, "you may easily reduce the daily intake of carbohydrates by preferring vegetables over bread." There were no other ambiguities in coding the other IPA categories.

The data were analyzed by means of descriptive statistics. First, percentage distribution was calculated for the issues related to slimming. Most importantly, the percentage distributions for IPA categories were calculated with regard to the postings, as well as the comments submitted by the bloggers and readers commenting on the postings. The quantitative findings are illustrated by providing a few quotations taken from the postings and comments. Even though the blogs analyzed in the present study were publicly available, an attempt was made to protect the anonymity of the bloggers and commentators. First, the blog contributors will not be identified by the nicknames or pseudonyms they used. Instead, the contributors are referred to by technical codes. For example, B-6 stands for Blogger 6 and C-60 for Commentator 60. Second, all information about the submission dates for postings and comments was deleted from the quotations.

5.3. Limitations

To strengthen the focus of the study, a few limitations appeared to be necessary. First, the study focuses on the textual material available on the blogs. Thus, no attempt was made to review the role of audio-visual material such as photos and videos attached to the postings. Second, no attention was paid to how the interaction between the bloggers and commentators manifests itself in diverse blogs. Therefore, the analysis concentrates on interaction taking place within individual blogs. Third, no attempt was made to explore how the contributors evaluated the relevance or usefulness of information available in the blogs. Closely related with this, the study did not evaluate whether the information provided by the blog contributors led to a positive outcome to lose weight, for example. Finally, due to space restrictions, no attempt was made to examine qualitatively how the bloggers and blog readers articulated their information needs and shared information. Answering questions such as these would have required a separate study.

6. Findings

6.1. Slimming issues

The bloggers discussed a variety of issues related to slimming. There appeared to be 13 main issues that were referred to 1,273 times in 489 postings. The former number is higher because several issues may be discussed in an individual posting (see Table 2).

Table 2. The main issues (n = 1273) mentioned in the postings (n = 489)

| | f | % |
|--|-----|------|
| Assessment of the slimming efforts | 284 | 58.0 |
| The nature of diet | 235 | 48.0 |
| Physical exercise | 135 | 27.6 |
| Miscellaneous issues of overweight and slimming | 109 | 22.2 |
| Objectives of slimming | 93 | 19.0 |
| Contextual factors of slimming | 74 | 15.1 |
| Problems caused by overweight | 60 | 12.2 |
| Problems faced in slimming efforts | 57 | 11.6 |
| Individual methods of slimming (e.g., Atkins Diet) | 53 | 10.8 |
| Consequences of slimming | 18 | 3.7 |
| Schedule of the slimming project | 17 | 3.4 |
| Nature of personal overweight | 11 | 2.2 |
| Issues unrelated to slimming (e.g., work, family) | 127 | 25.9 |

The most popular topic discussed was evaluating slimming results; 58% of the postings discussed this issue. Bloggers also discussed the nature of diet (48%) and physical exercise (about 28%) fairly often. Given that people's slimming efforts tend to revolve around issues such as these, the popularity of the above topics should not come as a surprise (cf. Bar-Ilan et al., 2006). Bloggers also often discussed

miscellaneous issues of slimming and being overweight. This category included topics such as attitudes towards overweight people in today's society and approaches to slimming issues in television programs. Bloggers posted about their personal slimming objectives and diverse contextual factors of slimming, such as their current state of health. There were some postings (about 11%) on individual methods of slimming such as low caloric diets. The bloggers also reported everyday problems caused by being overweight (for example, difficulties in walking upstairs), and occasional failures in slimming, such as relapse into uncontrollable binging. Finally, the bloggers devoted considerable attention to themes not directly related to slimming, for example, the nature of their work days, family events, and shopping (about 26% of postings).

6.2. The nature of interaction in slimming blogs

Interaction between bloggers and readers was usually triggered by the newest posting submitted by a blogger. The most watchful readers reacted to the posting within a few hours, while in some cases readers submitted their comments the next day or even later. Bloggers also contributed to the discussion area by writing comments on their postings or thanking others for their comments. In some cases, however, a broader dialogue was launched when readers posed further questions that elicited additional comments among the contributors. In these cases, the discussion area resembled a small-scale discussion group. It was also characteristic of most blogs that a few readers faithfully contributed to the discussion area. In contrast to such "constant commentators," there were those who reacted to a posting and then never contributed to the discussion area. Interestingly, about 35% of postings attracted no comments from readers. Typically, such postings contained detailed characterizations of the daily diet or physical exercise undertaken by the slimmer. However, in two cases out of three, at least one comment was submitted by readers. Usually, the blog's discussion area entailed two to three comments per posting. In the eight blogs, there were only six postings that attracted 10 or fewer comments; the maximum number of comments per posting was 19.

Table 3 specifies the nature of the interaction taking place in blogs in terms of IPA. The percentages indicate the extent to which particular IPA categories were assigned to the (a) postings, (b) comments provided by the bloggers, and (c) comments submitted by the readers. Table 3 indicates, for example, that 18.2% of the postings (n = 489) showed solidarity and 91.8% provided information. Since a posting or comment could serve multiple functions, the sum of percentages exceeds 100.

Table 3. Percentage distribution of the acts constitutive of interaction in slimming blogs (the number of IPA categories assigned to postings = 1230, to comments written by the bloggers = 784, and to comments submitted by readers 1497)

| IPA Category | | Postings | Comments | |
|--------------|-----------------------|--------------------------|--------------------------|-------------------------|
| | | by bloggers (n = 489) | by bloggers (n = 368) | by readers (n = 749) |
| 1 | Shows solidarity | 18.2 | 55.1 | 49.0 |
| 2 | Shows tension release | 11.0 | 23.4 | 16.2 |
| 3 | Agrees, concurs | 1.8 | 34.8 | 46.9 |
| 4 | Gives suggestion | 3.5 | 5.4 | 8.5 |
| 5 | Gives opinion | 80.6 | 55.1 | 45.9 |
| 6 | Gives information | 91.8 | 26.9 | 16.6 |
| 7 | Asks for information | 0.6 | 1.1 | 5.5 |
| 8 | Asks for opinions | 6.9 | 2.9 | 4.4 |
| 9 | Asks for suggestions | 0.8 | 0.5 | 0.5 |
| 10 | Disagrees | 4.0 | 1.4 | 2.8 |
| 11 | Shows tension | 32.1 | 5.4 | 3.5 |
| 12 | Shows antagonism | 0.0 | 0.3 | 0.1 |

In general, Table 3 suggests that the interaction in the blogs was mainly constituted by acts that indicate giving opinion (Category 5), and giving information (Category 6). It was also characteristic of the interaction that the role of asking questions (categories 7-9) remained marginal among bloggers as well as readers. This suggests that blogs are not primarily forums where people interact by articulating their information needs. Further, the interaction drew heavily on the acts that indicate positive emotional reactions (categories 1-3). By comparison, the share of acts indicating negative emotional orientation remained low (categories 10-12). The bloggers differed most notably from readers in that the former primarily contributed to the interaction by giving information and opinion. By comparison, the readers contributed most distinctively to interaction by agreeing and concurring with the views presented by the bloggers.

6.2.1. *Socioemotional functions in interaction*

The quantitative analysis revealed that the positive socioemotional functions constituted by IPA acts 1-3 were more frequent among commentators than bloggers (see Table 3 above). About 55% of comments written by bloggers and 49% of comments submitted by readers included indications of solidarity, such as greetings and congratulations for successful attempts to lose weight. One comment, for example, was, "Wow, wow and wow! I cannot help admiring you. You have done this all just by changing your diet." (C-27)

Positive emotional reactions entailed attempts to release tension. These acts were most frequent among the bloggers who commented on their own postings. Finally, the positive socioemotional reactions that indicated agreeing or concurring were particularly characteristic of the readers. Often, they were eager to confirm that the

slimming efforts of the bloggers had been laudable. Readers also encouraged bloggers to continue their efforts in cases in which the latter reported about occasional failures.

On the other hand, blog contributors seldom exhibited negative emotional reactions (IPA categories 10-12, see Table 3 above). There were relatively few examples showing disagreement. As a whole, the bloggers and readers did not differ much in this regard. Again, this reflects the positive atmosphere of the blogs. If a disagreement was articulated, it was brought to the fore in a friendly and constructive manner. It was particularly characteristic of the bloggers that many of them showed tension originating from unsuccessful attempts to lose weight (about 32% of the postings dealt with this issue). For example:

I would like to sink beneath the surface of the Earth! I weigh now a three digit number of kilos. I just cannot dress my appalling feelings into words. I'm feeling like vomiting, disgust, anger, ache. (B-5)

6.2.2. Information needs and information sharing

IPA categories 7-9 depict acts that focus on asking questions and providing answers. More specifically, these acts specify how blog contributors articulated their need for information (Category 7), for opinion (Category 8) and for suggestion (Category 9).

The bloggers and readers seldom presented questions to obtain more specific information (Category 7). As Table 3 indicates, readers were more active in this regard since 5.5% of their comments included questions to the bloggers. A considerable part of the information needs focused on the nature of dieting and physical exercise undertaken by the slimmers. Some informants were interested in knowing about the starting point of slimming projects. Information needs also focused on diverse topics, such as dietary preferences with regard to the intake of protein, the caloric value of diets, and the significance of natural products for slimming efforts. Readers were also curious to know about products and services provided by companies active in the field of slimming and weight maintenance.

Blog contributors seldom articulated their desire for opinions and suggestions (Category 8). Most notably, about 7% of postings were questions for opinions, and the share of requests for suggestions remained very low among bloggers as well as readers (Category 9). The questions for opinion concentrated on a few topics such as the methods of slimming. For example, blogger B-6 wrote, "I just thought about buying some chromium-based products to fight the lust for sweet. Does anyone have positive experiences of these products?"

Opinions were also solicited about the ways in which people motivate their slimming projects. In addition, there were inquiries for opinions about miscellaneous topics such as books and television programs.

Table 3 indicates that the major part of the postings and comments were written to provide information and opinion. No less than 92% of the postings provided information about a variety of issues related to slimming efforts (Category 6). The bloggers provided facts about the results of daily weighing, described the nature of their diet, and reported in detail how much protein and carbohydrates were in their in

meals, as well as the amount of intaken calories. Blogger six wrote, "The scales showed this morning 83 kilos. So, within two weeks, by means of low carbohydrate diet I have managed to lose 3.7 kilos."

About 81% of the postings, 55% of the comments written by the bloggers, and 46% of the comments submitted by the readers reported opinions (Category 5). Such opinions were often related to the personal experiences received from the slimming projects. The contributors were eager to share their views on the nature of diets and individual methods of slimming. Blogger 4 wrote, "At first, I felt the artificial spiritedness characteristic of *Weight Watchers* as refreshingly distinct from others. However, currently I find it irritating because you can see similar approaches everywhere."

Compared to sharing opinion, the postings and comments rarely provided suggestion and direction (Category 4). These acts were somewhat more frequent among the readers, since about 8% of the comments included suggestions how to further the slimming efforts. Commentator 60 wrote, "Please, visit <http://www.karppaus.info>. You may find interesting things there."

7. Discussion

The category system of Interaction Process Analysis (IPA) provided a sophisticated framework in which to identify the acts that constitute interaction in small online communities. Most importantly, IPA enabled a detailed study of the extent to which articulating information needs and sharing information constitute interaction taking place in the blogs.

The present study sought answers to two research questions. First, to what extent does such interaction include acts that indicate positive and negative emotional reactions to the issues discussed in the blogs? The findings indicate that the emotional reactions exhibited by blog contributors were predominantly positive; negative reactions were rare. Overall, the finding suggests that blogs are particularly strong in building supportive communities of interest, especially when it comes to health issues. The second question asked to what extent does the interaction between bloggers and blog readers include acts that indicate asking and sharing information? The empirical analysis showed that the interaction mainly occurred through giving information and opinion, while the role of asking questions remained secondary. This suggests that the blogs primarily serve the ends of information sharing, while they are less frequently used to seek information from other contributors.

However, one should be cautious in generalizing the empirical findings. They are based on the study of a narrow slice of the blogosphere (eight Finnish-language blogs devoted to slimming); thus the findings cannot be expanded and presented as if true of all blogs generally. Furthermore, since there is a dearth of comparable studies on blogs as forums of information seeking and sharing in everyday contexts, the evaluation of the findings is rendered difficult. However, the results have similarities with the findings of Chung and Kim's (2008) study. It showed that for cancer patients and companions blogs function primarily as tools for emotion management and information sharing rather than as tools for information seeking that serve the ends of problem solving. The findings of the present study are also parallel with the results obtained by Eichhorn (2008), who examined the nature of online eating disorder

support groups. In these groups, too, the messages primarily served the ends of providing rather than requesting information. Similar to blog postings and comments, the messages were characterized by positive emotional reactions.

Schoch and White (1997) had earlier drawn similar conclusions in a study on the electronic support list serving the needs of diabetics and patients with colon cancer. In their study, as well, the most frequent IPA acts were "giving orientation, information" (about 80% of messages in the colon cancer list and 85% in the diabetes list). Similarly, the participants in these lists were more active in providing answers and opinions than asking for information, opinion, or suggestion. The study showed that questions indicating information needs accounted for 26% to 28% of all messages on the lists. Thus, compared to the slimmers, diabetics and patients with cancer were more active in asking questions. However, similar to the present study, providing information or opinion was more general than asking for information. Almost all messages (91% in the colon cancer list and 97% in the diabetes list) served the ends of sharing information or opinion (Schoch & White, 1997, pp. 284-286). In their study, too, the messages were more strongly positive than negative reactions.

However, the slimming blogs and electronic lists differed most radically with regard to IPA category 11, showing tension. Acts related to showing tension were fairly frequent among the bloggers (about 32% of postings), while participants in the electronic lists rarely exhibited negative reactions of these kinds (1.6% of the messages; Schoch & White, 1997, p. 285). The difference is probably due to the specific nature of slimming. People struggling with overweight often experience temporary failures, and they easily report their bad feelings. People suffering from diabetes or cancer may encounter such incidents less frequently because they have already become familiar with the symptoms of chronic diseases such as these.

8. Conclusion

Blogs enable the development of small online communities that allow people to seek and share information about everyday issues such as health concerns. Distinct from more traditional online forums like electronic lists and Internet newsgroups, the issues discussed in blogs revolve around the personal projects pursued by the individuals. The main strength of interactive blogs is that they can provide emotionally supportive forums for sharing opinion in the context of furthering everyday projects. Since the present study focused on blogs serving the particular ends of the slimming projects, there is a need to conduct comparative quantitative and qualitative studies in other subject areas. Such studies would shed additional light on the interactive nature of the forums of the social Web. In addition, blogs should be put in a broader context by examining their role and significance in relation to traditional sources of information. Importantly, studies of these kinds may deepen our understanding of whether such forums make a real difference in information seeking and sharing.

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