Job-hunting Support with Enhanced Informal Communication within a Department

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Abstract—We have surveyed job-hunting activities of students within our department. According to the survey, senior students can potentially help their juniors by giving information of companies and their experiences. However, lack of communication tools makes it difficult to exchange information actively. Especially, most important information like examination problems or experiences of interview is rarely shared. We have found that mixed support of online/offline communication and anonymous/real-name communication is important. In our design of job-hunting support system, we have adopted Weblog and RSS to enhance circulation of information.

Keywords-CSCW, Weblogs, RSS, Job-hunting Support, Informal Communication

I. INTRODUCTION

Most students looking for their jobs use major sites of job-finding service. These sites are indispensable to students since they collect information of jobs provided by thousands of companies. One of the typical job-finding service sites in Japan is, for example, RECRUITNAVI (http://www.rikunabi.com/) or Nikkei JOB NAVI (http://job.nikkei.co.jp/). They have the following features.

- They collect information of thousands of companies, including employee profiles graduated from many universities.
- Various kinds of data retrieval is available (e.g., by business domain, office location, etc.).
- Students can directly enter their names and profiles to companies they choose.
- Mail distribution, lectures, and columns are provided.
- etc.

Other major job-finding service sites also have abundant information and excellent usability. However, we cannot say that all necessary information is covered by them. For example, we often find information items like “written examination”, “first-stage interview”, or “the planned number of employment” on such sites. However, we cannot find more concrete information like the actual problem set of examination, the interview time, or the total number of applicants. For another example, students cannot imagine the concrete everyday tasks from very short job descriptions like “salesperson” or “system engineer”.

Such concrete information is not concerned by the sites, since in many cases it is not disclosed by companies. We have considered that major job-finding sites have the following problems.

- Only public positions and formal statements are disclosed.
- Information flow is one-way: companies to students.

Then, what can we do if we need the following information?

- Number of applicants.
- How many applicants survive at the first-, second-, and the last-stage examinations?
- What examinations are given to applicants? How can we prepare for them?
- When an informal notification of appointment will be given?

Such information is not given from most of the companies. Students can neither frankly ask companies about them. In order to solve these problems, we have analyzed users’ requirements and roughly designed a job-finding support system, especially for internal use within a department of our university.

Faculty of Engineering, Kagawa University has a career counseling service. They provide information on career opportunities. In each department of the faculty, there is a designated faculty member who supports students of the department for their job-hunting. Students receive job information by e-mail from the faculty member and university clerks. Senior students, who have already finished their job-hunting activities, and colleagues who are currently hunting jobs can also help a job-hunting student. Therefore, a system to facilitate flow of information on job opportunities among students, their seniors, faculty members, and university clerks will give considerable merits to job hunters.

In this paper, we first analyze types of information that job-hunting students need. A proposal of system design using Weblog is described based on the result of analysis. Finally conclusion and future views are given.
II. SURVEY OF USER NEEDS

In order to share information among stakeholders, they should open some of the information they have. The opened information should match the needs of other stakeholders. We have categorized stakeholders into three groups.

The first category is the group of students who are now hunting for jobs or going to hunt for jobs in the near future. We suppose that they want to know job-hunting activities of other students and their seniors and want to know details of examinations and interviews for their preparation.

The second category is the group of students who have already finished their job-hunting activities. They have been mentioned as senior students so far. They can help their juniors, while they still remain as university students in their last year. We suppose that they can give their information to some limited students.

The third category is the university staff. However, they are not concerned in this paper.

To confirm the hypotheses, we carried out a survey of students’ needs by a questionnaire from January to February in 2004. We show part of the results.

- Most of the students used major sites like RECRUITNAVI and Nikkei JOB NAVI. Many students were not satisfied with these sites because of “much useless information”, “insufficient necessary information,” and “unsatisfying retrieval functions”, etc.

- When talking about their career with friends, students want to hear about tips on self promotion, and the business domain of their choice. Especially, promotion techniques are most concerned. As a typical opinion, one student wrote that he did not want abstract instructions like “promote yourself as you are,” or “write well-grounded sentences”, but actual concrete examples of entry sheets or answers to the questions at the interview.

- When learning from a senior student about job-hunting, junior students want to know 1) interviewed matters in detail, 2) problems of written examinations, and 3) information on informal notifications of appointment (which company, when, and how many?). However, it seems that they basically want to hear about everything from their seniors if possible.

The most important question in the questionnaire was Q 20 shown below.

**Q20:** In the items of information on your job-hunting activities below, which item of information can be given to the following people? Check all the table cells if you think you may give the information.

1. Company names you tried to get a job,
2. Problems of written examination,
3. Information on informal notifications of appointment (which company, when, and how many?),
4. Final choice of job position and its reason.

From its result shown in Table 1, we have found that the easiness of information sharing among stakeholders depends on people, not on the information itself. We can see that more than half subjects are potential contributors to information sharing for supporting job-hunting activities.

III. LIMITATIONS OF EXISTING TOOLS FOR COMMUNITY

To satisfy the requirements of students, tools for community like BBS are expected. In this section, we introduce another site called “everybody’s job-hunting diary” (hereafter EJD, http://www.nikki.ne.jp/), which would be the most popular BBS site for job-hunters, and show that it can neither satisfy students’ actual requirements.

EJD aims at exchange of students’ opinions on their career and job-hunting. Since this site is described as “500,000 members are registered; 2,600,000 topics of word-of-mouth communication on 11,500 companies are given.” on its top page, and since it has a long history from 1996, we can say this site is highly estimated by students. EJD has bulletin boards for all companies. Students can submit their comments, ask questions, and answer them on the boards. Students can create new bulletin boards if there is no board for a company that they wish to be employed by. Many of the students in our university use EJD.

It seems that we can find informal information on EJD that cannot be found in other major sites like RECRUITNAVI and Nikkei JOB NAVI. However, we found three problems.

The first problem is that there is little contribution by

<table>
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<tr>
<th>TABLE I. RESULTS OF Q20 (N=30)</th>
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<tr>
<td>Company names you tried to get a job</td>
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<td>Students you know well.</td>
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<tr>
<td>Other Students.</td>
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<tr>
<td>Laboratory Supervisor</td>
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<tr>
<td>Faculty staff who is in charge of supporting job-hunting</td>
</tr>
<tr>
<td>Other faculty staff and university clerks.</td>
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</table>
students on the bulletin board about local companies or small and medium-sized enterprises. Few numbers of contributions discourage other students’ contribution.

The second problem is that we cannot acquire helpful information from EJD. No comments like those on questions and answers at interviews, statements on entry sheets, or problems of written examinations were found on the bulletin boards.

The third problem is that all contributors are anonymous. A user cannot guess why a student passed an examination, only from the information on EJD like a comment “I passed!”, without direct communication with the passed student.

Our needs of job-hunting support cannot be fulfilled by a combination of existing groupware functions like bulletin boards, meeting supports, or mailing lists. A bulletin board is for anonymous many people. On the other hand, e-mail and mailing lists are not anonymous, used for communication with specific individuals. Tools supporting the both aspects of non-anonymity and anonymity are needed to satisfy our requirements.

We believe that the following two design requirements are important to support job-hunting within a department. One is a mixed support of online and offline communication. Delicate information (like questions and answers at interviews, etc.) is easier to exchange at a face-to-face meeting. Our system is aimed at intra-department use. Users can physically meet each other. Another is a mixed support of anonymous and real-name communication. Anonymous communication is an easier way than real-name communication to submit delicate information. However, without identifying who is the anonymous writer, an offline meeting cannot be realized.

According to these requirements, we have found the following three design principles are important.

(1) To disclose the possibility of personal communication on job information, rather than the information itself on the Internet. It is because students often hesitate to submit detailed information like the problem of written examination or interviewed questions, to a public place.

(2) Identification of submitters. Other people cannot get further information personally from an anonymous contributor. Even if a message on a bulletin board is submitted by an anonymous author, readers can contact with him offline and get more detailed information if identification of the author is possible. In many cases, anonymous submitters do not want to keep perfect anonymity, but they just hesitate to write with their real names. Such delicate attitude can be found in Table 1. The questionnaire has shown that students’ target companies are often common, since many of them want to get jobs at local, software companies. It seems that starting communication from bulletin boards of each company is reasonable.

(3) Active updates of information. As a bulletin board is assigned to each company, some of them might be silent. It is desirable that a user can get necessary information immediately from all information sources on the site.

We have decided to adopt Weblog as a communication tool on our job-hunting support system, with a customization for users within a department.

IV. BENEFITS OF WEBLOG

We especially consider the following features of current Weblog sites as attractive. With these features, the stakeholders can easily arrange and exchange units of information for job-hunting.

(1) Generation and Import of RSS --- Some of the Weblog tools can generate and import RSS. Using RSS, readers can efficiently pick up updated and interesting topics.

(2) Comments & Trackbacks --- Explicit and implicit references between topics activate information exchange. Anonymous authors would be interested in each other by these mechanisms. They are expected to start communication with their real names or have offline meetings.

(3) Friendly Authoring Tools --- Popular tools lower writers’ time and mental cost.

V. SYSTEM FRAMEWORK

Current structure of information flow in job-hunting support has been analyzed as shown in Figure 1. Flow descriptions with question marks mean potential communication.

In Figure 1, information that category 1 students are required to report to university staff includes their course to take after graduation, company names that they have been given informal notifications of appointment, etc. On the other hand, important information like each company’s detailed information, problems of written examinations, interviews, or tips on self promotion is not collected by the university staff. In order to share these kinds of information, we expect Weblog can be used.

First, university staff submits entries of general information to the system. It consists of career opportunities, recommended companies, orientation meetings in each department, and results of the last year --- company names that senior students received informal notifications of appointment, which is most important for students. Due to the privacy issues, individual names of senior students cannot be disclosed. However, university staff can disclose a list of company names that gave

![Figure 1. Information Flow in Job-Hunting Support](image-url)
informal notifications of appointment last year without problems since such list is usually opened to the public.

Next, each student comments on the entries submitted by the university staff. At this step, students can also show their intention to have personal communication if requested. If some students want to apply to a company or get information from their senior, they will give comments positively. If a second category student, who has been appointed by company A, finds a request of information on company A, (s)he will feel a responsibility to comment something or to have personal communication. Even if (s)he does not see the request, university staff may advise him/her to respond, by e-mail or offline communication.

Currently, when information on career opportunities is updated, university staff notifies students by e-mail. However, the e-mail is not needed for students who are not interested in the updated companies. If we design the system with RSS, students can use some filtering functions in order to get only necessary information.

Figure 2 shows the information flow of our designed system. A circle represents a stakeholder of the category numbered inside.

In order to realize this system, it is desirable to have the following functions:

1. Users can check quickly one's interested information.
2. Users are encouraged to provide information.

Weblog is more suitable than other communication tools for implementing these functions, because:

- Comments and discussions are given at each entry. They are arranged in a company-by-company, topic-by-topic manner.
- It provides an environment for each student to easily retrieve information with the categorization and the permalink function.

- The trackback function supports dynamic information sharing with other stakeholders who use Weblog. Even if submissions are made anonymously, mutual trackbacks and comments will encourage them to know each other with their real names and make active or offline communication.
- Functions for RSS generation/import are prepared. With RSS, students do not have to receive useless messages. Since RSS is also distributed by major news sites, students also arrange information obtained from some news sites along with career information from the university or their colleagues.

VI. DISCUSSION AND CONCLUSION

We focused on the job-finding support service for students, because information sharing among stakeholders is not satisfactorily realized with existing web-based communication tools. We could hardly found researches on this problem, but we found one contribution.

Nickel and Schaumburg pointed out that many people hesitate to disclose their information to the Internet and few researches have been conducted on self-disclosure, by a case-study on e-recruitment [1]. They also pointed out the importance of data security and users' control on their own information. However, their discussions were on formal and basic information like name, age, affiliation, telephone number, and income.

In our case, the information we try to deal with is more informal. It is mostly on companies, not on student themselves, and is not perfectly private or confidential information that must be kept secret. However, students naturally hesitate to disclose it to the Internet or to all other students in the university. Finding an intermediate way between handling private and public information, or between formal and informal communication would solve the problem of information sharing within a department of university.

In this paper, we have analyzed the needs of stakeholders and information flow of the current system. We have proposed a job-hunting support system using Weblog and RSS, in which students can collect necessary information in a efficient way and show the intention of giving informal information that they have. Mixing anonymous/real-name and offline/online communication is an important design policy to enhance informal communication.

REFERENCES