

Work Processes at a Silicon Valley High Tech Company*

The Scenario

Every Monday morning nearly 200 new employees join Silicon Valley High Tech Company (SVHTC) by participating in a New Employee Orientation. The NEO introduces new employees to the services, benefits, and history and values of their new work environment. Included in this half-day orientation is a presentation made by a member of the Information Technology Learning Group (iTLG), which is one of 30 training organizations within the company. The iTLG has members in San Jose, CA and Research Triangle Park, NC. This iTLG representative offers a quick overview of the core technology that employees use for their work and performs a quick “walk through” of the Desktop Reference Guide that is distributed during this time. The Desktop Reference Guide is a book containing instructions, helpful hints, and other information about some of the important hardware and software used at SVHTC. This presentation is meant to direct new employees to web resources that will enable them to become more educated about the use of their technology.

In November, 2000, the Technical Response Center/Information Technology Support (TRC/ITS) and iTLG discussed the future of the Desktop Reference Guide. The TRC/ITS is the group that fields all calls regarding technical problems and provides online technical help and support. The Desktop Reference Guide is essentially a modified, hardcopy version of information that is available on SVHTC's intranet. The issue debated was whether or not to continue producing the Desktop Reference Guide. Since it is plagued with errors due to updates and changes in technology used at SVHTC, it is also more difficult to maintain than the pages on the intranet. Three key members in the TRC/ITS met with two key members in the iTLG to discuss this issue. Beth*, who works in Research Triangle Park and was a member of the TRC/ITS, made a recommendation to the group about creating a New Hire Technical Checklist (NHTC). In developing the NHTC, the important tasks that need to be completed by new employees would be identified. The NHTC would direct new employees to places on the intranet that would help them complete these tasks, as well as support their learning and understanding of the tasks and content. Since the rest of the group agreed with her solution, Beth became the project leader/developer of this checklist as well as a member of iTLG.

From the end of November until the middle of January, Beth brainstormed her ideas about these important tasks that new hires would need to complete. Since she had experience working in the TRC/ITS, she was familiar with the common questions that arose among employees. Furthermore, she researched the existing material that was offered by the iTLG, the TRC/ITS, and other groups in SVHTC. The iTLG already has a video on demand, which is available on the intranet and provides a more detailed introduction to the technical tools needed to work at SVHTC. The TRC/ITS has a library of support documents for the technology used at SVHTC; this is also available on the intranet.

After surveying all of the information, she sent a rough outline of her list to the entire iTLG team for review. Since this checklist is related to the project that the three of us are working on, we suggested to our mentor that she use the same format and development tool that we are using to create the course. Our mentor, who is a Project Manager, recommended this idea to Beth. He suggested that she use the most current course development tool, *Evolution*, and its proscribed instructional design theory in order to build her checklist. Throughout her

* Pseudonym used

development process of this checklist, Beth requested help from the three of us in using the tool because of our familiarity with the software. Her requests as well as our responses were primarily in email form due to the time zone difference, as well as our limited time at SVHTC. However, there were a couple of instances when we spoke to her on the phone, usually while we were in the presence of our mentor at SVHTC. Since the checklist will be available on a web space called the New Hire Dashboard, Beth consulted with members of Organizational Effectiveness group within Human Resources, and iTLG for feedback and clarification.

Beth was put in an awkward position because she was unfamiliar with *Evolution*, web design, and instructional design. She expressed her frustration with the tool by her questions and comments and was unsure of the effectiveness of her design. We received numerous emails asking for help and provided as much feedback as possible. Moreover, Beth was responsible for many other projects and this could have added to her frustration.

After receiving feedback from both groups, Beth's checklist is nearly finished and will be available for new hires by the second week of February. The issue of maintenance is yet to be determined, but Beth thinks that it will be her responsibility to update and adjust the content as necessary.

Deconstruction the Work Process ***Formal Practices***

The formal practices within iTLG provide a framework for people to work individually as well as collaboratively. The manager holds weekly group meetings in San Jose, members in the group share updates about current projects and offer solutions regarding challenges that arise in these projects. Members of the team are encouraged to help each other with their problems after the meeting instead of during it, as time is limited and the agenda is usually full. This is also a forum for team members who are distributed geographically to re-connect with the team. The two members in Research Triangle Park call in to the meeting and attend virtually. These weekly group meetings usually last an hour and a half. Although individuals usually take their own notes during the meeting, an official set of meeting minutes is also distributed to the iTLG in email form. The manager acts as the mediator and facilitator of the meeting, and the team members share their reports in an unscheduled order.

The manager also schedules weekly meetings with each individual in iTLG to address concerns, provide support, and serve as a sounding board. Within the group and in the company at large, a groupware software program called *Meeting Maker* enables people to electronically suggest times, locations, agendas, and action items for meetings. The manager also encourages group members to participate in professional development opportunities inside and outside SVHTC and to share the knowledge gained with the rest of the group.

Although most of the work takes place in SVHTC offices, some members of the iTLG work remotely. This adds flexibility to the work environment and allows for employees with familial commitments, a long commute, or unexpected events to deal with their circumstances with relative ease.

Additionally, the iTLG in San Jose acts as the headquarters for the IT group, globally. The other members are distributed in Asia, Europe, and other localities. However, these geographically distributed members visit San Jose on a regular basis in order to maintain their connections and awareness of each other's work. One of the directives of the iTLG is globalization, which requires coordination of all members of the iTLG. *NetMeeting* and *PlaceWare* facilitate

communication and collaboration of geographically distributed teams. *NetMeeting* and *PlaceWare* are online collaboration tools that provide communication in audio and text formats.

Informal Practices

The informal practices are equally noticeable within iTLG as are the formal practices. These practices can be sub-divided into three main categories: electronic practices, social practices, and situational practices. In terms of electronic practices, everyone in the iTLG subscribes to at least one group mailing list. Each person can also email specific individuals about questions. If the question does not require immediate attention, email is often the first and preferred method of communication. However, to encourage people to “shoot” each other questions and answers, everyone in iTLG is asked to establish an *AOL Instant Messenger* account. If someone is away from his or her desk, he or she can also be paged, either electronically through a computer, which sends a text message to their pager as well as an email, or through a SVHTC operator. The electronic page is encouraged, as it is a free service, in contrast to the page through the operator, which is not.

Informal learning takes place during social gatherings as well. Members of the iTLG use meals, breaks, and off-site special events to share information. Often people will leave the office to go out for a “working” lunch meeting. Sometimes social dinners are organized for pleasure, but also result in the sharing of work information. Coffee breaks serve the same purpose; they are a “relaxed” time for “talking shop.” With respect to the off-site events, “field trips” are arranged so that group members can conduct field research on a topic. For example, three project managers, Jee, and Heidi went to the Metreon in San Francisco to look at and play video games. This field trip was organized based on a conversation that one of the project managers, Jee, and Heidi had about learning and gaming. This field trip also provided the opportunity for Jee and Heidi to meet another member of the iTLG who works in a different geographical business area but lives in San Francisco. Our mentor had worked for this project manager in the past and had maintained a professional and personal relationship with his former supervisor. This introduction and exposure to the variety of opportunities at SVHTC was another goal of the field trip.

The physical spaces allow for situational practices to arise. Everyone with the exception of two group members works in the same building. The farthest distance in this office space between individuals is about 40 feet. It is easy for individuals to walk out of their cube or office space to ask someone a question. For the most part, the proximity and the lack of complete enclosures, allow for people around the open cubes to hear the conversations and other goings on in nearby cubes. We speculate that the IT Managers have enclosed office spaces because of their rank, seniority, and managerial responsibilities, which may require privacy. In this same building is a break room with free drinks and space for people to sit, eat, and talk.

The Relationship Between the Formal and Informal Practices

The formal practices help the informal practices, which ultimately enable people to do their work. In the case of the New Hire Technical Checklist, Beth was able to update the group of her work in the context of the formal group meetings. Consequently, members of the team were able to offer her advice, help, and feedback immediately, although detail of the same was reserved for informal venues. She contacted specific individuals via email regarding unique questions related to her project and solicited feedback from the entire group when she was finished with the first iteration of her checklist. In having a forum where individuals can communicate information about their work, people gain a sense for each other's specialization and awareness of each other's current projects. This enables members of the group to target

specific individuals with questions at first formally, which is followed up informally, either virtually or face to face. Furthermore, the formal meetings provide opportunities for team members to share their experiences in dealing with similar problems or projects.

Role of the Organizational Chart

While the job titles suggest a hierarchical structure in iTLG, the interactions and behaviors suggest that the group actually functions as peers. Each member is valued for the knowledge that he or she brings to meetings, conversations, and presentations. However, these titles and the number of years of experience are also implicitly important in terms of salary. From “top to bottom,” there is one manager, various levels of project managers based on the number of years that they have worked in iTLG and at SVHTC, and administrative coordinators, instructional designers, and contractors.

Only an incomplete organizational chart exists at SVHTC. Any curious employee can search on the electronic directory to make a rough estimate of another employee’s placement in the organizational chart by looking at the “reporting chain” hyperlink. This link provides the “degrees of separation” an individual may have between him or herself and the CEO. Although the “reporting chain” provides a glimpse into the organization of the company, it is still difficult to understand the entire context, especially in the lateral dimension. Information is in some ways unclear because there is no way to know the seniority within a department.

Expectedly, new employees often have difficulty understanding their place in the organization, the resources available to them, and the support systems in place at SVHTC because of the absence of an organizational chart. New employees and perhaps even some of the more established employees find it challenging to understand the context in which they work. The absence of an organizational chart seems to be a conscious omission. SVHTC prides itself on being a fair and egalitarian company. The CEO has stated in several interviews that everyone at SVHTC “flies coach”. This includes the CEO as well as all of the other high-ranking officers at the company. It seems that an organizational chart would undermine and contradict the message of equality at SVHTC. In the same vein, SVHTC is a dynamic company. It acquires new companies regularly. Nearly 40 % of the employees have been there for less than 18 months. Therefore, the task of created, updating and maintaining an organizational chart would be unwieldy and costly.

Conclusions

Our observations suggest that the formal and informal practices work together within the iTLG to help the group get its work done. Some of SVHTC’s core values are “quality team, teamwork, and open communication.” These three are particularly visible in the way practices are carried out.

The iTLG’s work process suggests a consistency in the valued ideals and the living practices. It is clear that three of SVHTC’s values- “teamwork, quality team and open communication” are ideals that are supported by the work process that iTLG follows.

As interns in this group, our ideas and voices are equally important to those voiced by others. We bring expertise in educational theory and share the ongoing knowledge we acquire in our courses at school. This knowledge is highly regarded and taken seriously by the members of the iTLG.

An example of formal and informal work practices is Beth and her Checklist project. She knew who to ask for instructional web design advice, where to go for content, and who to ask for overall feedback. Although she admitted she was frustrated, feedback from the group was essential to the project getting done. This was a result of scheduled meetings, phone calls, and emails at night.

As a result of Beth's experiences and what we have observed so far, here is a list of work flow improvements:

- Structure to capture present, past and future knowledge to share with the group as people transition in and out. Inherent in the structure could be various media that are used to archive the knowledge. For example, web-based tutorials could be available for developer tools, such as one that explains how to use *Evolution*. Also, tips on how to design instructional web documents and white papers could be offered and updated as necessary to document both the formal and informal work practices. This will help people know who to go to for assistance, how to understand their work process, and how the work process has evolved under different managers. In addition, making design rationales for all projects available, either online or in paper form, and accessible to all iTLG members may assist in this transfer of knowledge.
- Encourage all members within the group to participate in all the informal and formal practices. Similar to the use of groupware software, individuals will only benefit from the structures that are in place if they choose to participate. For example, now that the three of us know Beth's *AOL Instant Messenger* screen name, we will be able to work with her in this informal capacity as well.