WHAT WORKS AND WHAT DOESN'T: YOUNG PROFESSIONALS' PERSPECTIVES ON THE USE OF TECHNOLOGY TO RECRUIT, TRAIN, EDUCATE, AND COMMUNICATE

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ABSTRACT

As many water industry employees of the baby boom generation begin to retire, companies are struggling to find the best ways to recruit and train Young Professionals to fill the newly created gaps. Technology is a crucially important tool in this process and it can be used correctly to motivate YPs or misused and go to waste. In this paper and presentation, Young Professionals offer their perspectives on various forms of computer technology tools used to recruit, train, and communicate. Topics discussed include the best use of webpages, blogs, webcasts, and online meeting software, to name a few.

KEYWORDS

Young Professionals, technology, recruiting, training, education, computers

INTRODUCTION

Like so many other fields, the water industry is facing an imminent "brain-drain". The workforce has been populated largely by the huge baby boomer generation, and those employees have recently started to retire. A wealth of experience and knowledge will disappear with them into retirement unless companies make a proactive effort to recruit younger employees and transfer as much of that knowledge to them as possible. Ever since the boom of the computer industry, many less glamorous fields such as civil engineering have suffered shortages of new talent. That coupled with a big population dynamic shift have put all kinds of companies, from utilities to consulting firms and beyond, in danger of being understaffed and incompetent. In order to remain competitive, even the smallest corporations need to make the best use possible of the latest computer technology to recruit and educate young professionals (YPs).

Young professionals have been raised in the digital age with computers in their homes from the time they were small children. Unlike previous generations, learning to use

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computers was as early a skill as reading or math. The introduction of email and the world wide web to the general public in the late 80's and early 90's spawned a new era of instant information and communication. Though productivity has increased exponentially, interpersonal communication skills and patience in general has seemingly decreased substantially. That's why it is so important that when employers select new technologies to incorporate in their workplace, they keep several goals and objectives in mind.

GOALS AND OBJECTIVES

First of all it may be useful to think about the technology from two perspectives. The first goals are to fulfill short or supplementary training and to access explicit knowledge, information that has been written down or recorded. The second and more important goal is a larger sharing of knowledge and general development. To accomplish this latter goal, technology is secondary to the required interaction and the relationship that must exist between professionals. The technology is simply needed as a tool to carry-out an ongoing, tacit exchange of knowledge. For example, a YP accessing a paper and a webpage on IFAS technology will not make him an expert. It will expand his general understanding, but to really develop expertise would require him to have experience and interaction with other professionals who already have the knowledge. The YP first needs a relationship and understanding with others who have it, and then technology becomes the conduit for how they interact. This knowledge sharing occurs from people who interact, not technology that interconnects.

Additionally when selecting new tools to aid in this transfer of knowledge, employers should refrain from jumping to what's hot or popular, and first ask several questions.

Does it facilitate teamwork and communication? Is the technology collaborative in nature or does it discourage a YP from seeking real interpersonal contact. This often happens with too much technology and is self-defeating. Sometimes YPs must be encouraged by their mentors or bosses to limit their use of email to people sitting in the very next office. If they have the time, they should ask for what they need or solicit ideas in person, because this promotes a dialogue which fosters brainstorming and problem solving. Sometimes time is at a premium, but even then the phone is often a better option than email. Studies show that the majority of a person's communication is not through their words at all, but through their body language and tone. Email prevents the body language and tone is extremely hard to get across through email and is often misinterpreted.

Is it easy to use, even for non-technical people? Veterans, Baby Boomers, and Gen Xers have enough problems interacting together without high-tech tools that could easily further the generational divide. Sophisticated software that YPs naturally understand but older professionals really struggle with can become a major stumbling block to effective teamwork.

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Is the technology appropriate for different learning styles? Some people are distinctly auditory learners, meaning they learn best by hearing information shared with them. For these people, reading a book is useless, but listening to a podcast from a seminar on a topic they need training on could be very beneficial. Visual learners on the other hand would not get much out of a podcast, but a webcast that shows a powerpoint presentation while broadcasting the speakers voice could benefit both types of learners.

Does the technology provide opportunities for the employee to revisit it later, download portions, and easily convert to hard copy? Whether or not it requires specific installations or downloads is important too as it may impact This question is also along the lines of catering to different learning styles. Also because the current generation of YPs are so highly mobile, sometimes they need to be able to take information wherever they go or be able to access it from different locations. YPs are very adept at multi-tasking and often move quickly from one subject to another, using only short increments of time to say, view and comment on a project blog, but they may revisit the information many times later.

TECHNOLOGY TOOLS

The following are various high-tech tools and methods of exchanging information. The opinions and experiences expressed are simply those of a handful of Young Professionals and may not be the case for everyone.

1. Webpages. Every company must have a webpage. That includes even the smallest consulting firm, utility, city wastewater plant, vendor, or lab. It is most often the first place that YPs turn to learn more about the company, especially when they are searching for jobs. If your company is actively recruiting YPs, they should have a page on their website dedicated to recruiting. The more information you share, the better off your company will be. This means not just listing the available job openings, but also talking about the corporate culture. If you have special programs for mentoring or professional development, by all means talk about it on the website. List a few testimonials from current employees in various capacities sharing what they like best about working for the company. A great example of a website for recruiting is from the consulting firm, Malcolm Pirnie. It can be found at http://www.pirnie.com/career_main.html. Webpages should always include personal contact information, not just feedback forms, to encourage viewers to make the interpersonal connection.

Webpages can also be useful for making specific documents or drawings available to anyone who might need them. Some cities have begun putting drawings and specifications for bidding projects online so that contractors and vendors can pay to download them instantly. That way addendums can be received immediately rather than waiting for them to arrive in the mail several days later. Equipment manufacturers also have started putting drawings, specs, and other important information online. Sometimes viewers may be required to register to access the information, which allows the supplier a chance to make a person-to-person contact with the viewer. Some YPs will

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unconsciously give preference to companies with extensive knowledge about their products or even water or wastewater in general available online. The more useful information you post on your website, the longer you will hold potential customers' attention.

In addition to providing useful content, websites should be graphics intensive. Photos, diagrams, and charts are far more likely to hold a YPs attention than pages of text. Additionally, even websites with hundreds of pages of content should be as laterally organized as possible. That means that every page on the site should only be a few (generally less than four) clicks away from the homepage. No one wants to go deeper and deeper into a website and not be able to find their way back to the homepage.

2. Blogs. Blog is short for weblog, and is a new extension of the common webpage. Blogs are a place where chronological journal entries can be easily written about any subject and readers can leave comments on each entry. Most blogs available today are personal in nature, but many companies and organizations have caught on to the wave of popularity of blogs and created their own. Many major media outlets have their own blogs, which consist of more editorial type pieces that are designed to start dialogues. An example of an industry specific blog for sharing technical information is the Water and Wastewater Blog, found at http://www.waterandwastewater.com/blog/. Blogs can also be very useful for keeping everyone involved in a particular project up-to-date on the project's progress. For example if a major change to a construction schedule takes place, the project manager can post it on the project blog for all to see. Then other people can choose to leave feedback comments about how that might affect other aspects of the project. A great example of this can be found in a blog about a Baton Rouge wastewater pump station SCADA system project. The link to this is http://www.manufacturing.net/ctl/article/CA624733.html.

Blogs are great communication tools and extremely simple to use. Anyone can start one on any subject using free services such as Blogger.com. Posting can be weekly, daily, or even hourly and can be done by anyone with permission and a password. Posts can be left open for comments or comments can be moderated to make sure they are appropriate before they show up on the blog. One fun example of how a personal blog can be used is by an engineering intern named Ryan Metcalf who posts daily about his experiences at Raven Engineering. This could be very useful information for students interested in engineering. Ryan's blog, Life of an Intern, can be found at http://www.ravenengineering.net/blog/intern/rmetcalf/.

3. Webcasts and Webinars. Webcasts are very useful for training large groups of people on a particular subject. Both WEF and AWWA offer webcasts on various water issues frequently. Users from anywhere in the world can pay a registration fee and see the webcast via their computer in their own office, usually live but sometimes recorded for later playback. It is critical that the webcast is focused on a very specific subject and does not drift. Advertising for webcasts should give the potential audience a clear idea of what experience level it is designed for. Speakers are heard live and powerpoint slides are shown but often listeners have a chat box open on their computer for posing

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questions. The webinar facilitator can choose to answer the question immediately or wait for a more appropriate time. Webinars can be better than teleconferences because they are visual and there are no verbal interruptions of the speaker. However they are better for training than for teamwork because of the lack of relational dynamics involved. Webinars are much less collaborative than teleconferencing and are not good for brainstorming.

4. Live meeting software. There are all kinds of live videoconferencing software packages available. Examples of these are Skype and Raindance, which firms such as Black & Veatch use for conducting live training sessions around the world. The software records the audio and video for playback at a later time. Webex is also a great program for technology meetings and training. It allows one location to essentially take over a computer at another location so that users can work together even when they don't have the same documents or software on their computers. Communicating with multiple locations at the same time can potentially cut down on the cost of providing certain training services. One negative of these programs is that the remote locations are a slave to the technology. For example if there is a computer glitch on either end both participants are out of luck.

5. Listservs. Information is shared to a specific group via email. The readers must subscribe to the listserv to get emails from the group, so the information is usually relevant to the user. The upside of listservs is that most people already incorporate email in their daily activities. They are best used for announcements and not as useful for soliciting feedback. One negative of listservs is that they can lead to receiving too much information and become a burden to your email account.

6. Brownbag seminars. This is a more low-tech way of transferring valuable knowledge within an organization, but all the YPs surveyed believed it is an excellent training tool. Equipment suppliers or experts within a company on a particular subject give a lunchtime presentation to a group of professionals about a specific topic. People are more willing to sit and listen to the information while they are eating their free lunch. The engineering firm Johnson, Mirmiran, & Thompson have a program called the triple T (Third Thursday Talk). Each month a senior associate volunteers a member of their staff (typically a YP) to give a 45 minute presentation related to a project they are working on or a new technology that they investigated as part of a project. They have found that this gives the younger staff an opportunity for public speaking in a friendly environment and brings everyone into a project. Manufacturers willing to provide lunch for an opportunity to pitch their technology are also very easy to find.

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7. Distance learning. Taking classes online can be a great way to complete an advanced degree while working or just to learn something new. Many universities offer degree programs via computer, sometimes with the requirement to come to campus for exams or presentations. These online courses are best suited for YPs who are very self-disciplined and motivated to advance their careers while managing their work and home life. It can be difficult in the professors aren't used to managing these online classes and if the students learn better in a classroom setting. Interaction with the instructors is generally limited to email or phone, and is not real time, therefore answers to questions are often delayed.

Another type of distance learning available for general education are short courses, offered either through universities or general career development companies. These courses are on very specific topics and are usually held over a day or two, either on a college campus or at a local hotel. One example are the two day courses on wastewater subjects such as Biological Nutrient Removal offered by Virginia Tech. These are held at a large hotel in a major city near the university, but not at the college itself. Another good example of very useful short courses are the seminars offered all over the country by Skillpath. Information about the classes they offer can be found at www.skillpath.com. Broad ranging topics such as time management and better communication skills are available at local hotels and are appropriate for all types of vocations and experience levels.

CONCLUSIONS

With the seemingly infinite number of technology options available to employers, it can be hard to choose and use high-tech tools appropriately. Young Professionals value advanced communication methods that make good use of their time and allow them to do their jobs more efficiently. It is vital that companies find the best ways to transfer knowledge from seasoned professionals to YPs before that knowledge and experience is lost. Technology tools are useful but must encourage relationship building and interpersonal connections in order to be most effective.

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