When assembling, servicing or operating hazardous materials, employees need to know with confidence and precision what they’re doing. When they are doing their jobs, they may need to access reference materials such as technical manuals or training materials, especially if they are new to the job. It is important to have these texts handy because if the information is forgotten or overlooked, it could lead to serious safety violations, injury and possibly death.

Wearable technologies hold great potential for use in the work place and it is important for technical writers to understand their potential and how to write for them. Google Glass is an excellent example of a wearable technology that has the power to transform how we think about writing and industry, in particular their use for manuals in hazardous work environments.

Instructional and training manuals can be adapted for Google Glass and provide users with many affordances. Google Glass provides a hands free way to for workers to complete tasks without having to look away or fumble with instructional or training manuals. With Google Glass, all of the necessary information is located in the corner of the users’ eye, which would allow for greater focus when working in hazardous situations.

In this multi-modal composition I will investigate how Google Glass can be optimized for use in hazardous work environments, and how technical communicators can reimagine instructional documentation for this space.
Instructional and training manuals are used to support both simple and complex tasks that people perform. Typically, people reference them frequently when they are new to a task or situation. They need this reinforcement until the actions and processes become automated.

Instructional and training manuals typically combine both text (to describe the steps) and images (to better illustrate what is being looked at). Employees in these potentially harmful situations may be working with many different tools and many different parts, so it can be difficult to keep them straight.

It is important for the user to complete each step in the process correctly, because each step informs the next. It is also important to identify the individual parts that are used for each step to ensure correct completion of the task. Try to use the above instruction manual to create a paper airplane. Note how many times you need to reference the text to make sure that you’re performing the actions correctly.
How Can Google Glass Replace Instructional and Training Manuals?

With Google Glass, the text of the instructional manual would be displayed on the screen, and the user would not need to look away to reference the instructions in the manual.

This would allow for greater concentration, confidence and reduce the chance for distraction. For the way that manuals are used currently, someone would need to divert their attention, eyes or even leave the situation entirely to seek the answers they need.

Google Glass could also help with training. When people start a job, they typically use more reference materials because the processes aren’t automated yet. While the steps and processes will eventually become automatic, having the necessary texts a finger’s reach away would help workers get the answers they seek quickly and help ease the transition to automation.

Although these workers don’t access instructional texts, they have likely honed their skills through intensive training.

Movie 1.1 How an Assembly Line Works

NPG assembly line for high inch TV. NPG Tech (Director). (2013, January 30) http://www.youtube.com/watch?v=yuDwBqiSwZU30. [Video/DVD]
How Can Google Glass Shape Writing?

Google Glass has a very small, unobtrusive screen that is visible in the corner of the right eye. Because there is such a small space, and a lot of visual competition for users, text needs to be succinct and easy to understand. All visuals need to be minimalistic and simple.
How Can Google Glass Shape the Self?

Google Glass helps shape the self in this application because the users would wear the instructional and training manuals. With easy access to these instructional texts, they would become more confident in the work that they do. They would not need to second guess their choices and actions. If they did question themselves at any time, they could easily access the answers. They could spend more time performing the actions correctly, and would be able to direct more of their energies into ensuring that proper safety protocol is followed.

**Review 1.1 Safety Regulation Assessment**

Which industries have OSHA standards

- A. Construction Work
- B. Maritime Operations
- C. Agriculture
- D. General Industry
- E. All of the Above

What Improvements Need to be Made?

Google Glass would need to undergo several improvements to become suitable for this environment.

Google Glass would need to be updated to include the proper required safety eyewear. Many workers use specialized safety glasses. Google Glass would work best when integrated with this.

Additionally, the bone conductor technology would need to be updated so that if there was a voiceover, the user could hear it clearly.

Overall, there are several improvements that would need to be made to Google Glass so that it was viable in this format, but it is definitely possible.
What are the Possibilities for the Future?

As technical communicators, we need to ensure that instructional texts are useful and manageable for use in a variety of contexts.

With minimal space and many other elements competing for attention, writing for this medium will continue to be a challenge.

There is a future for Google Glass in industry. Barry Lynch, the Global Marketing Director- Automation Hardware at GE has been exploring the potential uses for Google Glass in manufacturing.