Lessons about Usable Information Products

Thinking about document usability lately? If you find yourself re-creating documentation from your suppliers to meet user needs, it may be a symptom of market conditions. Without hearing the "voice of the customer," your suppliers might be ignorant about the usability of the documents they provide.

Technical Communication (TechCom) Specialists are experts in examining documents for usability. Through document analysis, TechCom Specialists provide solutions to help you — the Subject Matter Expert. They study audience analysis, information design, technical writing and editing, usability analysis, SME interviewing, and technical communication ethics.

Consult with TechCom Specialists, either in your local community or in your remote communities on the web. You will learn why documents need to be revised for usability, and they can offer you advice about the information products they design for subject matter experts, and point-of-service users like your customers.

E-Learning and Informative Posters

Subject Matter Experts (SMEs) can benefit from information products like e-learning to help train, and remind, what point-of-service users should know and remember. By using e-learning, users will have easy refresher courses at their conveyance. E-learning products can simply be created by using advanced digital design tools and interactive media.

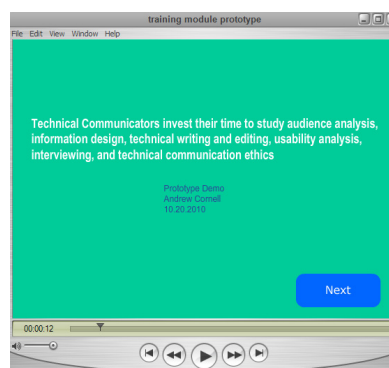Figure 1. E-Learning prototype for instructing users on Locomotive Lead Positioning.

Figure 2. E-Learning prototype for instructing users on Technical Communication.

At times, users need reminders about safety like the dangers of electrical systems, or reminders about regulations like the procedures that address environmental idle emission standards. Technical Communication Specialists can recommend materials and genres to provide point-of-service information directly to users in their environment.

Technical Communication Specialists design information products by using cutting edge digital design tools, applying knowledge about materials and context, and selecting the most appropriate cost-effective print production method.

For SMEs without resources and knowledge in digital design, Technical Communication Specialists can act as project managers and collaborate with design professionals.

Figure 3. Informative poster created for a subject-matter-expert to address and describe three safety terms about Rubber Glove Work safety.

Document Analysis for Usability

Point-of-service OEM equipment users need documentation to perform tasks. According to academic studies in cognitive task analysis, readers must recognize characters, words, paragraphs and comprehend information by finding meaning in the paragraph and the document. It becomes difficult when equipment users want to perform a procedure to perform a simple task, but stressed when information is hard to find — a problem in document usability. Users become discouraged from reading and using a difficult document. It becomes worse when users must perform difficult tasks under extreme stress — a documented fact in the nuclear and locomotive industries. Technical Communication Specialists have the knowledge and skill to examine a document for usability. These professionals can issue technical reports to explain why documents are hard to use, and recommend ways to help point-of-service users.

Figure 4.
Screen shot from a single page in a 200 page operators manual. The sample is an unclear procedure with tasks, feedback, software, hardware, indication.

SME interviews show that users need effective materials. The SME recreates another document to help train, support subordinates, but relies on knowledge about writing and desktop software. User context is remote and in extreme conditions.

Source: AARC, Electro-Motive, 10.23.2010

Figure 5.
Screen shot from a 33" x 25" context oriented information product. The sample is a proposed solution from a TechCom Specialist.

The design relies on the mental model of the users experience with the system e.g. locomotive, controls, indicators. It places system information in one location for the user.

Source: Cornell, STC newsletter author, 10.23.2010

Usability Problem Solving in AD-HOC Environments

Reader environments dictate the usability of documents in industry, and manufacturers find it hard to deliver usable documents that meet the needs of all readers and their environments. Excessive product support is one symptom where documents fail to meet usability requirements, and deliver AD-HOC (unplanned) documentation. Technical Communication Specialists can provide professional advice to Subject Matter Experts through informative interviews and document examination. From this advice, Technical Communications Specialists propose solutions to solve problems in document usability.

Figure 6.
Screen shot from a default AD-HOC software user guide. The user guide presents a simple procedure using text and basic paragraphs to help users find and send commands within a complex SCADA website.

Front-line product support reported excessive calls from customers who needed assistance to navigate a complex SCADA website user interface. Call profiles show that AD-HOC user documentation failed to meet system complexity.

Source: Technical Writer (SME), Telemetric, 10.23.2010

Figure 7.
Screen shot from a new user guide created by product support team who studies at the graduate level in Technical Communication. Product Support responds to the customer in the field to help them understand and use complex technology.

The user guide relies on visual design techniques to create tasked based procedures, which allows a complete comprehensive guide to include all features and options within a complex website. A TechCom solution to AD-HOC documentation.

Source: Cornell, Product Support, 10.23.2010