



## TECHNICAL COMMUNICATION SKILLS IN THE CONTEXT OF TRAINING SPECIALISTS FOR SOFTWARE OUTSOURCING FIELD

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Eight years ago, in February 2007 in our University the Intelligence Computer Systems Department was established with the aim of training specialists in the Applied Linguistics field. This event coincided remarkably, with Ukraine's intensive entering the international outsourcing business in the area of software development. Within the last ten years, we have observed a growing number of companies in the Ukrainian IT market specializing in developing high quality software products and providing quality assurance (QA) services for customers in the USA, Canada and Western Europe. Together with the growth of these businesses, the demand for software developers and QA specialists is constantly increasing. In spite of the general economic recession in Ukraine, the IT industry is growing persistently. This fact is favored by western companies' striving for cost reduction by means of outsourcing.

Joe Welinske, a well-known expert in Technical Communication and User Assistance in California, cites some US technical writers sharing their concerns in his 2014 Skills and Technologies Survey: "... Company wants fewer employees and more outsource", "Losing US jobs, hiring in India" and so on [4].

The specialists trained by our department are unique. Combining teaching programming and foreign languages, the department staff strives for educating professionals who would work both as software developers and as translators. At the same time, training in such promising fields as technical communication and user assistance has dropped out of sight for quite a long time. It is an astonishing fact. After all, these are the careers where Applied Linguistics graduates can find self-fulfillment as IT specialists if they cannot or do not want, due to various reasons, to become programmers or translators.

The following information can emphasize actuality and high degree of development of these trades, and of the technical writer profession in particular, in the USA. In his research, Joe Welinske asked 444 respondents working in the area of technical communication to give the titles of their positions in the company. The result of this survey was a list of 158 titles. The most frequent ones were Documentation Manager (10), Documentation Specialist (7), Information Developer (10), Lead Technical Writer (5), Principal Technical Writer (12), Senior Information Developer (10), Senior Technical Writer (62), Technical writer (101). The collocation of words "technical writer" occurred in 26 titles [4].

Are good technical writing skills important in software development business?

In his book "Technical Writing made easier" Bernhard Spuida says, "When talking about algorithms, or sequences of events in a program, absolute clarity of writing



is not only needed in the code discussed; but also in documenting this particular program for our fellow programmers and users. We need to attain the same level of clarity of expression in both cases, otherwise readers will turn to other programs, which are more accessible on the level of understanding and therefore easier to use or extend" [1].

For technical documents to be useful, readers must be able to understand and employ them without having to decode wordy and ambiguous prose. Good technical writing clarifies technical jargon; it presents useful information that is clear and easy to understand for the intended audience. Poor technical writing may increase confusion by creating unnecessary technical jargon or by failing to explain unavoidable technical terms that readers would not be expected to know.

"If a technical text is unreadable in the reader's eye, he will quite probably assume that the product described in this text also is of inferior quality. Code is a language, just as the language of the documentation is. Not writing well in documentation implies faults in coding style. Therefore, readability is an absolute requirement for documentation of successful products," says Bernhard Spuida [1].

Most IT professionals are required to have some technical writing skills. In the information technology realm, project and product managers, business (system) analysts and solution (system) architects write a large number of technical documents that must be clear and concise. Articles and essays need to be well thought out and ordered. How the writer introduces the piece, builds on the introduction through the body, and concludes will largely determine how the information is accepted. Step by step, the writer must present main ideas, supporting evidence, analyses and conclusions in a logical and organized manner. The writing must not wander, but keep to its task of presenting the writer's information in the clearest possible way [2].

Technical writers use computers and other electronic communications equipment extensively in performing their work. They also work regularly with publishing software and various authoring environments to prepare material directly for the Internet. Technical writers frequently work with word processing, graphic design, page layout, and multimedia software. The nature of technical writing is evolving, and modern technical writers combine text, graphics, images, and sound into their work.

And here we are coming to a very significant distinction between two terms – **Technical Writer** and **Technical Communicator**, as it is given in Wikipedia.

A Technical Writer writes documents (user guides, administrator guides, online Help, etc.).

A Technical Communicator is a newer term for the same job acknowledging that the writer needs to do more than simply write documents, but also needs to understand the intricacies of systems, processes, business flows, and can develop content that includes more technical reference and information [3].

Technical writing specifically in support of software applications is commonly referred to as User Assistance.

Effective user assistance development requires a wide variety of communication skills. These include writing, editing, task analysis, and subject matter expert (SME) interviewing. Since the user assistance profession is directly involved with software development, the discipline often requires an understanding of user interface design,



usability testing, localization, testing, quality assurance, instructional design, scripting or programming, and accessibility.

Technical communication skills provide the foundation. They are supplemented by skills unique to the software development world. In his survey, Joe Welinske asked the respondents to value the importance of a number of skills commonly employed by user assistance professionals in their daily work.

Here go the top ten skills valued highly with a rating of “4” (Very Valuable) or “5” (Invaluable), the top two ratings on a five-point scale.

Content development skills are highly rated with Writing procedures (80%) in first place. As for other aspects of content development, Task analysis (68%), Writing reference information (68%), and Interviewing (71%) are all highly rated by three quarters of respondents. Information architecture (60%), Copy editing (58%), and Developmental editing (47%) are valued highly by at about half of respondents. Search (48%) remains important to almost half of respondents.

Expertise with authoring tools being a key skill (77%) is up at the top of Other Skills list. The nature of working with a digital medium like software user assistance requires the use of a variety of tools. Project planning is an important skill no matter what your role is. Almost three-quarters (71%) of respondents rank this highly [4].

As we can see, the development of technical communication skills in general and technical writing skills in particular at practically all major participants of software product development and sales process has taken on special significance lately. Although the position of technical writer has not become widespread in the structure of Ukrainian IT companies, the further development of the international outsourcing software business may change the situation. The growing demand for specialists in the field of technical communication and user assistance requires the necessity of changes, like, for example, introduction of Technical Writing theory course, in the educational process and the Applied Linguistics syllabus.

### **Bibliography**

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