**HOW TO TALK ABOUT TECHNOLOGY**

Currently our society faces a gap that is rapidly becoming a chasm between those who understand technology and those who do not.

If a bridge is to be built between the information "haves and have nots," it must be built by those already in the know. Unfortunately, the skills needed to inform others about technology are altogether different from the skills needed to acquire that wealth of wisdom in the first place.

All too often those of us who are techno-literate forget that explaining how to reconfigure an autoexec.bat file is not like giving someone directions to the post office. Talking about technology becomes even more of a problem when we try to make a technical presentation before a group. Delivering a good presentation is extremely difficult under the best of circumstances; when your subject matter is technical, it becomes even more of a challenge.

[Speaking versus writing about technology](file:///C%3A%5C%5CDocuments%20and%20Settings%5C%5COwner%5C%5CMy%20Documents%5C%5CUniv%20of%20Phoenix%5C%5CCOM%20TM541%5C%5CWeek4%5C%5CEBSCOhost.htm%22%20%5Cl%20%22toc%22%20%5Co%20%22Speaking%20versus%20writing%20about%20technology%20%20)

Written communication is less likely to be misunderstood than verbal communication because you have a chance to preview the material. You have time to read what you wrote before anyone else reads it. You can "switch hats" and experience your own message the way a reader would. If something does not make sense, you can rewrite it. The reader, too, is able to take in the material at his or her own pace. The reader can skim ahead, go back, and control the communication process. This is not to say that most technical writing is effective. The reality is that most technical writing is written by the technically literate for the technically literate - who usually do not read the manuals anyway. When was the last time you read a straightforward technical manual for a high-tech product?

Verbal communication is much more of a "shooting from the hip" medium compared with written communication. It is for this very reason that training in presentation techniques is critical. You can never really "take back" what you have said. You may apologize, cover-up, obfuscate and deny each time you place your foot where your fork should be; but you can never reverse the clock. Oral communication demands that you get it right the first time because if you don't, you may never have a second chance.

Put yourself in your listeners' place before you open your mouth. Practice "listening" to your audience's nonverbal signals while you speak. Take the time to "measure" who they are, where they came from, and why they are listening to you.

[Change the way you think about communication itself](file:///C%3A%5C%5CDocuments%20and%20Settings%5C%5COwner%5C%5CMy%20Documents%5C%5CUniv%20of%20Phoenix%5C%5CCOM%20TM541%5C%5CWeek4%5C%5CEBSCOhost.htm%22%20%5Cl%20%22toc%22%20%5Co%20%22Change%20the%20way%20you%20think%20about%20communication%20itself%20%20)

The structure of language itself is part of the problem. We cannot help but describe communication by using such words as "send," "transmit" and "exchange." It seems obvious that communication does not involve any real physical exchange and yet we always seem to speak about it as if it did. Messages are not "things" that can be exchanged like coins.

One of the ways communication breaks down between the technical "haves and have nots" is directly a result of this misconception about communication. In this mutual frustration festival, the technically adept believe their audience is not able to "get" the message. The technically adept keep repeating themselves and conclude that their audience is stupid. Meanwhile, the non-technical audience becomes increasingly convinced that the technical aristocrats are speaking a language that they will keep among themselves forever. It is thanks to this frustration that words like "techno-weenie" have found a place in our vocabularies.

The job of the speaker is not to force the message through; the job of the speaker is to allow the listener to create his or her own "impression" of the message. The audience will never receive your exact idea in its entirety; rather the audience selects what they will perceive from what you say in accordance with their own perceptual screens and biases. As Walter Lippmann said: "For the most part we do not see first and then define; we define first and then we see."

You will take a big step toward improving your effectiveness at explaining technical ideas by realizing that your job is not to "transfer" meaning. Your real goal should be to provide the type of environment in which your audience can create accurate impressions of your words. Start thinking of yourself as a "facilitator" of understanding rather than as a sender of messages.

[Organize your information](file:///C%3A%5C%5CDocuments%20and%20Settings%5C%5COwner%5C%5CMy%20Documents%5C%5CUniv%20of%20Phoenix%5C%5CCOM%20TM541%5C%5CWeek4%5C%5CEBSCOhost.htm%22%20%5Cl%20%22toc%22%20%5Co%20%22Organize%20your%20information%20%20)

Besides paying more attention to your listeners and gaining a better understanding of how communication works, the next way you can help talk about technology is to improve the way you organize your presentation of information. As you communicate to an audience, you are to them just a part of what philosopher William James called "that big, blooming, buzzing, confusion" that makes up the world.

How you organize your technical presentation can help overcome that confusion. There are a variety of ways this can be done:

A. Historical - It is often appropriate to describe a subject in terms of its history. For example, if you were making a presentation about cellular phones, you could start by explaining how phones have evolved over time. This provides your listeners with a stronger frame of reference.

B. Geographical - Most technical subjects can be organized around a model of the thing itself. This is the "show and tell" approach. If you are talking about computer hardware, show the hardware itself. Explain how each part works from top to bottom. You can also use illustrations that serve as "maps" of the product itself.

C. Formula - A clever method of organizing information around the letters of a key word. For example, someone once gave a speech on the topic of listening that centered around the word HEAR (Helpful, Empathic, Attentive, and Responsive). Each letter represents a subtopic for your presentation. This is a great memory device.

D. Five Ws and H - Arranging your material in terms of who, what, where, why, when and how.

E. Topical - Breaking your main topic into subtopics makes a presentation much easier to follow. Instead of speaking for an hour on "selling," break it down into manageable subtopics such as "prospecting for clients," "gaining the attention of clients" and so on.

F. Comparison/Contrast - Just as a photograph with contrast attracts our attention, contrasts and comparisons help make ideas more vivid to your listeners. Try describing personal "war stories" that illuminate your material. If you are trying to tell someone how important it is to make backup copies of your work, you'll get your point across much faster by talking about the time your hard drive crashed two hours before a deadline.

G. Use the familiar to illustrate the new - New information cannot be assimilated in a vacuum. Knowledge spreads by adding to what is already known. One way to accomplish this is described in the following section.

[Use relevant analogies and metaphors](file:///C%3A%5C%5CDocuments%20and%20Settings%5C%5COwner%5C%5CMy%20Documents%5C%5CUniv%20of%20Phoenix%5C%5CCOM%20TM541%5C%5CWeek4%5C%5CEBSCOhost.htm%22%20%5Cl%20%22toc%22%20%5Co%20%22Use%20relevant%20analogies%20and%20metaphors%20%20)

This last point -- using the familiar to illustrate the new -- may be the most important of all. As described earlier, information is not "transmitted"; rather, information is conveyed through the process of comparing the unfamiliar to the familiar. How you go about accomplishing this comparison is critical. One way is by using figurative language and analogies. Analogies allow listeners to "connect the dots." Analogies can help them make connections between what they already know and what you wish to convey.

The whole idea behind using any type of figurative language is to do what Aristotle described as giving a "thing a name which belongs to something else." When you say that a computer is a mechanical "brain" you are using metaphor -- a type of figurative language. Writers on the subject of metaphor characterize it as "understanding and experiencing one kind of thing in terms of another." We understand the computational power of computers by comparing them to what we already know about the brain.

To use an analogy from word processing, a metaphor is a sort of merged file in which two separate documents come together creating a third. When you talk about technology, you need to create a new file in the mind of the audience that merges the new information you wish to convey with the existing files in the listener's mind.

If you examine the history of science, you will see that many great inventions came about through this same type of metaphoric linking: Medical doctor William Harvey discovered the circulation of the blood by looking at the heart as a "pump," rather than as an organ. Mathematician and astronomer Johannes Kepler's discoveries were triggered by the analogy of the sun in the universe. Chemist Friederich Kekule made his discovery of the benzene ring after dreaming of a snake with its tail in its mouth -- these and other examples abound in the history of science.

Imagine a scene in which a group of primitive people see an airplane for the very first time. Even though they are unfamiliar with the airplane, they are compelled to call it something, so they say that it is a silver bird. A bird is the one thing in their world of experience that can be compared to an airplane. Even though they do not yet understand airplanes, they at least have some sort of basis upon which to build an understanding. To successfully talk about technology, you need to start off talking about birds before you talk about jet airplanes. Take what the audience is already familiar with, and link your ideas to that.

In the nineties, everyone is talking about the metaphor of the "information superhighway." This metaphor evolved as a way to explain the revolution in telecommunications. Although the comparison with a highway is far from completely accurate, its usage serves the same purpose as in the example with the primitive people looking at an airplane for the first time. The metaphor creates a link between the unknown and the known.

In summary, when you speak about technical matters, you must pay more attention to your listeners than you would in ordinary discourse. Not only must you take their prior experience into account, you must also discover the surest means by which your material can connect to what they already know.

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**BETTER DIRECTIONS TO THE INFORMATION HIGHWAY**

Like the six blind men who each defined the entire elephant by the singular part he grasped, many people are trying to define marketing on the Information Highway by a similarly limited view.

The cyber waves of online services and "the Net" are new communication media that require a new marketing approach. Rather than use a one-dimensional marketing strategy based on advertising that forces a print ad or TV ad format into an interactive media, Successful Marketing Strategists, Berkeley, Calif., promotes a three-dimensional model that addresses seven areas of marketing -- its Big 7 of Cyber Marketing:

1. Technology education of the marketplace, 2. Building general market awareness, 3. Press relations, 4. Product distribution, 5. Marketing promotion, 7. Customer service and support.

Millions of cyber surfers are information junkies. They want lots of specific information and they want to meet people who have information to share. Surfers can go directly to the information they want and never see a print or vide ad. Users pay by the minute to surf, so when they want product information, they have little interest in spending time with the type of ads that they can see for free in a magazine or on TV.

Effective cyber marketing requires companies to emphasize information first, selling second. Research also uncovered the value of three-dimensional marketing strategy that focuses on 1) getting new customers, 2) selling new products or services to existing customers and 3) providing more effective customer service and support.

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