

Technology for the Technically Challenged

Philip Smartt, Ph.D., CIT
Center of Excellence for Experiential Learning in the Agricultural Sciences
Department of Agriculture and Natural Resources
University of Tennessee at Martin

Introduction

Is technology a bad word? Does it bring on feelings of inadequacy? Does the mention of hardware and software cause you to break out in hives? Choosing and using technology does not have to be as sophisticated as it might sound.

Often when we hear the word technology, we think of things such as smart bombs and computer equipment. Quite simply, technology is any tool to do a particular job. Without thinking much about it, we have been technology users all of our lives.

Technology is simply a tool to solve a problem. Technology has two components, hardware and software. Hardware is the item being used and software is the knowledge of how to properly use the item.

A step-wise approach can be used to decide if a new “tool” is needed and how best to put it to use. This process will be demonstrated using a common problem.

The Problem Solving Method

To begin the process of choosing technology, we begin with the problem to be solved. By focusing on the problem, the decision-making process is driven by need and not want.

After the problem has been clearly defined, evaluate your hardware (tool) situation. You may not need to acquire a new piece of hardware. You may already possess the proper hardware to solve the problem. If not, then you would need to obtain it. Remember the old advice of “Use the right tool for the right job.” Additionally, when reviewing hardware possibilities you should study the relative advantage (Rogers 1995) of each option as it applies to the problem.

Once a hardware decision is made, do you have the software to use it? Software can often be a problem. It's one thing to pick a tool, it's totally another to use it properly. An old tool can do new tricks with the proper knowledge of how to use it. If hardware requires new software, training or the hiring of consulting services may be needed.

Finally, work the solution. Apply the solution to the problem and see if it works as hoped. If not, review the process and see where the solution breaks down.

An Example

Buying a new computer often strikes fear in the heart of the average person. To summarize the process, the cardinal points from a compass can be used.

Need - Start with your need, not your want.

The problem is clear. Your computer has died and needs to be replaced. You never did like typing, so you want to see if there are options.



Evaluate - Evaluate your hardware options.

There are seemingly endless computer options. After reading numerous articles, surfing the web, and talking to friends, you think a Tablet PC might be a great choice.



Software - The knowledge to use the hardware.

The Tablet PC uses a pen input. While shopping for your new computer you try out the pen input and pick it up easily. Otherwise, the Tablet PC is like your old system.

Work It - Work the solution.

Try out the computer. Keep your options open. Check to see if you can return the computer if it doesn't work out.

Literature Cited

Rogers, E. 1995. Diffusion of innovations. New York: Free Press. 519 p.

