



How to Choose a Printer

Time was when the decision to buy a printer was based solely on whether *any* printer would run off your computer. Today, choosing the right printer can be as confusing as selecting the computer itself. And little wonder—some of today's printers have as much computing power under the hood as the personal computer driving them.

However, using common sense and doing some research can help you select a model that meets your needs *and* stays within your budget.

The criteria in purchasing a printer are these:

1. Speed
2. Print quality
3. Interface(s) available
4. Noise factor
5. Options available
6. Price

No doubt you noticed that I mentioned price last. This was no accident. You can get a wonderful deal on a useless or nearly useless printer if you don't keep your priorities straight. *First* pick the printer you need. Then find the best deal.

Don't even think about the above criteria without first defining your applications. Ask yourself, "What am I going to use this printer for the most?" If finished manuscripts are what you need,

the fastest dot-matrix printer may not be able to give you the quality of type you need. If the forms you'll be processing are tractor fed, the quietest printer that lacks tractor-feeding capabilities simply won't do.

Let me describe some of the options in printers and make general comments about their suitability to specific applications:

Laser Printers

If you're a high-tech person, you'll have trouble passing up what laser printers can do. Just make sure you know what they *can't* do before you plunk down the \$3,000-plus one will end up costing you. Laser printers are fast, quiet, super-quality printers that basically run like glorified copy machines, except that they generate originals from your computer in roughly eight seconds, regardless of what you're printing. Most laser printers can even print a standardized form that you plan to have them fill in, and their print quality borders on typesetting. (Compugraphic, the largest typesetting manufacturer, uses modified laser printers to typeset; they're that good! And Apple's answer to the automated office offers a hopped-up laser printer for producing forms, graphs, letters, you name it.)

If your application calls for sheet-fed paper (to date no tractor feeds are available), and does not

require multiple copies (NCR paper or carbon), and you don't anticipate needing to print more than 3,000 sheets a month (their recommended output), then consider a laser printer. Applications like personalized mail, billing, graphs and charts, even newsletters and book manuscripts—all fit nicely within the purview of the laser printer.

Dot Matrix Printer

These have come a long way from their humble beginnings. Today's dot matrix printers are fast and flexible. Some boast letter quality that rivals an IBM Selectric (get samples before you stake your printing future on it, though). They're usually noisier than some of the other printers I'll be discussing, but if this is not an issue, and you can stand a little poorer print quality, their price and performance figures are astounding.

Dot matrix printers now offer color capability, which means you can do some amazing things with them. From 3-color to 16-color printers, the newer machines can do graphics, highlight sentences or paragraphs to get the reader's attention, produce headlines and a variety of type fonts, and reproduce charts and graphs, with the added impact that only color can supply. All this is available for not much greater cost than a one-color printer. Most models come with

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image among the varied publics of a college or university.

Honest Stories, Caring Atmosphere

Adventist college marketing ought to be perceived as conveying honest stories that portray the opportunity for higher education in an atmosphere of goodwill, excitement, warmth, spiritual caring, and quality training—an atmosphere where “piety and scholarship go hand in hand,” in the words of one religion teacher I interviewed for this article.

None of this can be accomplished unless college admissions officers and marketing personnel have a clear understanding of the college’s mission, assess the prospective market and determine its needs, and then, with the administration and staff, make sure that the school “provides the product it promises,” to quote a college relations director.

The ultimate product, for an Adventist college, is the development of Christian characters in its students. This high goal must constantly be kept in view by everyone connected with the college—administrators, teachers, pastors, and support staff, as well as public relations and marketing directors.

Editorial

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only hope for the future. Money invested in education will yield rich rewards in many ways.

Aside from the ability to secure a job and increase one’s earning capacity, other issues are at stake. The more thoroughly people are educated, the more aware they become of life and its full meaning. Such individuals are better able to control their destiny. They can select their responses from broader

alternatives. The results are increasingly predictable and satisfying.

Education also develops in people increased sensitivity to their surroundings. The well-educated person becomes acutely aware of the needs of others and is more responsive and understanding toward them. Awareness results in tolerant attitudes and a broader world view.

Other benefits that enrich one’s life are gained through education, such as ability to make one’s home a secure and comfortable place, and to interact positively and creatively with one’s family and friends. Educational background also influences one’s capacity to become a person of influence in civic affairs, neighborhood projects and in the church. Such involvement is important and satisfying.

A well-educated person can and should be a patron of the arts, supporting and participating in cultural and intellectual events and thereby bringing an uplifting dimension to the entire spectrum of community life.

Finally, and most important, education should enhance one’s ability to communicate the beautiful truths of Scripture, making one a persuasive Christian who presents his or her Master in a way that brings healing and strength to the hearer. The well-educated can thus provide leadership to the local church through the commitment of their time, talent, and resources, making the church a centerpiece of the community where wounds are healed, people matter, and help is always available. This is the very reason we have been given the opportunity to develop our talents—so that instead of serving ourselves, we may better know how to serve others.

Every educator at every level

must seek to convey this vision and the need for our young people to develop the talents God has given them. Teachers, your students will not understand the importance of these matters unless you draw the picture clearly for them. It is your responsibility to create in each young person a desire and determination to learn how to better serve God and humankind.—N.C.S. □

Computing With Class

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tractor feed or sheet feeder options and the more sophisticated ones are already equipped to interface via RS-232-C standard serial port or parallel interface. If your application calls for high volume, multiple parts, speed, and tractor feed, you’ll find the selection and price of dot matrix printers make them a good choice.

Ink Jet Printers

Like laser printers, ink jet printers are quiet, boast incredible quality, and offer other benefits over traditional technologies—no ribbon to dry out, snag, or run gray. However, like laser printers, ink jets can only make one copy at a time, and to date they haven’t got tractor feeds down to a science. The ink is more or less a liquid; therefore, instead of ribbon problems, you may have clogging problems. The good news is that replacing an ink cartridge means replacing the entire mechanism that could be clogged, so maintenance may not be the hassle implied.

Daisy Wheel Printers

These kind of stole the thunder away from the tried-and-true IBM ball technology. They’re faster, quieter, require a much less sophisticated movement mechanism, and

provide top-of-the-line quality. Most daisy wheel printers accept tractor feeds as well as sheet feeders and can make multiple copies. Their only real disadvantage is in the speed department, where a speed of 55 cps (characters per second) is considered excellent. Don't be surprised to find the cheaper models down in the 10 to 15 cps range. When used in conjunction with a pure carbon ribbon, however, you can't beat their quality (although the price of ribbons can set you back considerably).

Thermal Printers

Thermal printers are a strange breed. Instead of striking a dot or wheel element through a ribbon or spraying ink on the page or even cutting a copier blanket with a laser beam, these printers actually burn the image onto the paper. The result—no ribbons to change, no ink density to fade or weaken. The catch comes in buying the paper. You can't use just any paper—you have to use heat-sensitive paper, which usually comes in a roll. Besides the expense (about four to seven cents a page) the paper has the tendency to fade over time. But if all you need is a cheap printer that can dump computer listings for programs you're developing, a thermal printer can run as little as \$150, print as fast as 150 cps, and rarely require maintenance—unless you let the type head touch the bar behind the paper (that is, run it without paper), which will cost you \$80 and a trip to the repair center every time.

Electrostatic Printers

Like thermal printers, electrostatic printers burn their letters into the paper, but they do it with lightning on metalized paper instead of using a thermal reaction

on heat-sensitive paper. The advantages and disadvantages are roughly the same as for thermal printers—no ribbons, low maintenance, high paper costs, no tractor feed or multiple copy capabilities. Electrostatic paper, however, doesn't fade away if left in direct sunlight. If your application requires only readable printouts and you don't want or need to fuss with paper trays, tractor feeds, or standard paper lengths, an electrostatic printer can offer economy and portability that are hard to beat. Compact and self-contained, these printers even have a roll of paper stored inside. Because they run off the computer instead of from a wall outlet, you can even operate one without electricity, if your computer operates on battery power.

In choosing which of the above printers best meets your needs, *first think through your applications*. Select the criteria that are most crucial. Do you need letter-quality manuscripts? Tractor feed? Sheet feeding or envelope feeding capability? Charts and graphs? Color?

Now, shop for the best deal you can get. Most printers will run off nearly any computer (unless you happen to be one of those unfortunates who has a computer that accepts only printers by the same manufacturer). Be sure to figure in paper costs over the estimated life of your printer and any extras you'll need like sheet feeders, tractor feeds, and so forth. Don't overlook maintenance expenses. Who's going to fix the printer when it breaks (it probably will) and at what cost?

The printer you buy can mean the difference between a happy computing experience and an exasperating one. Analyze your needs first, then strike the best deal you can.—Dave Ruskjer. □

A System in Search of Identity

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of the phrase. Rather, she noted in 1881, and continued to emphasize throughout her ministry, that students "should have an opportunity to study the sciences [including the liberal arts] and at the same time to learn the requirements of His word."¹³ While Adventist education, she wrote in 1895, should not make "too much of human education" or "exalt human learning above God"; on the other hand, it should not be "superficial." "No movement should be made to lower the standard of education." Students should "grasp the principles at the foundation of every subject under consideration." Ellen White had no doubt that Adventist education should be quality education, but she defined quality from a Christian perspective.¹⁴ All subjects of study, she repeatedly insisted, should be integrated with the Bible and the Biblical world view.

The Accreditation Issue

A second identity crisis in the development of Adventist higher education was the propriety of granting degrees, a nineteenth-century problem that evolved into the issue of accreditation early in the twentieth century.¹⁵ This issue was directly related to the problem of a Christian curriculum. Sutherland spearheaded both reforms in Adventist circles in the United States. However, it is important to realize that while he found abundant guidance for curricular reform in the writings of Mrs. White, he perused her writings in vain for any direct counsel on degrees. In 1896, therefore, he wrote to Prescott, who was in Australia, requesting him to ques-