

THE ISMM REVISITED (I)

by Don Lancaster

I've recently republished the second edition of my classic Incredible Secret Money Machine, and I thought you might like an advance peek at the new update and introduction...

History always repeats itself. First as tragedy and then as a farce. Somehow we have now made it as far as the fall of 1991. The *Incredible Secret Money Machine* is now thirteen years old. And selling better than ever. But the last remaining mountain of them has just vanished out of my storeroom. So a revision would seem to be in order.

Probably the greatest indicator of your ongoing enthusiasm is how long you can keep your copy of the ISMM before it gets permanently ripped off. The average time seems to be fifteen weeks. A half life, sort of. Or maybe a time between reincarnations.

I guess I'm not into revisionism, so I won't. With obvious adaptations, most of this book is as accurate and as useful today as it was then. Perhaps more so. Instead, I should leave the *status quo* exactly the way it is and just add a few comments here.

When the first ISMM was written, personal computers seemed strange beasts, and you had to continuously defend why you had one and what you did with them. These days, of course, a personal computer is essential for *any* money machine. At the very least, you should be comfortable with some word processor. Better yet, a useful desktop publishing package and a programming language that you can relate to.

The choice of a machine is simple. If you believe computers are just a work tool like any other, pick IBM. If you think computers are for fun and for computing, then you go Mac.

Networking

One of the biggest mistakes I've made over the years is not realizing how important personal networking is or has become. Networking is simply associating with others, either one-on-one or electronically. Your personal network consists of people you know that are outside of your family, work, or church. Who, for some reason or another, either share your interests or can advance your money machine. Or expose you to ideas or concepts that you would not otherwise tune into.

Obvious ways to personally network are to go to club meetings, teach or learn a course, attend events, author stories, participate in seminars and shows, travel to unusual locales, do volunteer service work, or run a voice helpline. Or simply get off the beaten path. Any way you can.

It is hard to imagine any money machine these days that does not have and aggressively use a modem. There are tens upon thousands of electronic bulletin boards that cover any and all imaginable special interests. Just a phone call away. The real biggies here are *GENie* [(800) 638-9636] and *CompuServe*. [(800) 848-8199] Together, they have many hundreds of thousands of information download files in an incredible variety of topics waiting for you. At astonishingly low prices. Our telecomm has finally arrived with a vengeance. Yea team.

The boards that charge are often much cheaper than the ones who do not. How's that again? The big boards are usually after-hours "load levelers" for major national tax preparers or for computer service bureaus. These have local access nodes in hundreds or even thousands of places in the country. So they are probably a local call for you.

Because of their higher profiles, the big boards also are more likely to have both exactly what you need and higher quality information in general.

It is probably *not* a good idea to start your own BBS. Most people grossly underestimate the time, the dollars, and the energy commitment it takes. They also often ridiculously overestimate how many callers they'll get. Or how often or how long they will stay. With most boards, you also will typically get only *one* upload for every 600 or so downloads. It is far better to work with some existing board or make yourself an assistant sysop for one.

The electronic networking solution that has been the biggest equalizer for me has been that *Dialog Information Service* [(415) 858-2700]. Dialog can give you instant abstracts of all the key papers in any technical field. From anywhere. At any time. While their \$120 per hour charges may seem steep at first glance, Dialog is often by far the quickest and cheapest way to do any serious research. Especially if you don't have even the foggiest notion of where to begin. Although you can subscribe to Dialog by yourself, it is better to use the services of a qualified librarian who knows all the shortcuts and has all of the resource and access manuals available.

A great BBS of special interest to money machine people is the *Whole Earth Lectronic Link*, or the WELL for short. [(415) 332-4335]. Lots here on alternate energy, small-is-beautiful, right livelihood, and such.

I have much more info for you on what we are about to look at. The brackets in the text send you to some downloadable files of mine found in the *GENie* PSRT RoundTable. [#217 INTROFIL.TXT]

A Sensitivity to Others

One of the more fundamental facts of life is that friends come and go but your enemies accumulate. It is super important in everything you do to try and look at everything from "their" perspective. Bluntly, should you piss someone off, they can return to haunt you for years or even decades. Bruised egos tend to rot quickly.

There are always multiple ways of dealing with any task. Some confront; others do not. Some are lowest level; others are not. Some are quiet; others are unnecessarily loud. Some apply only precisely the minimum necessary force to do the job; others do not. Some put you center stage; others do not.

The ploy of avoiding *all* zero sum games certainly still goes. Only much more so today. These days, it has a new name. It is now called seeking out WIN-WIN situations in everything you do. Especially if it involves others on an ongoing or long term basis.

RCF Ploys

I would like to rename and briefly expand on the original ISMM concept of having others pay you for your fun. Just what determines which direction the cash flows in any transaction? In lots of cases, the "obvious" answer that "they" think is correct for you is not necessarily the only one possible.

I'll define a *Reversed Cash Flow*, or RCF as any method you could conjure up to cause the nickels to head on out exactly in the opposite of the "usual" direction. And preferably into your own pocket. Knowing and exploiting relevant and workable RCFs are key money machine secrets.

Some RCF examples which have worked for me: Having the US Forest Service pay me to stay in a mountain cabin as a fire lookout. Or getting paid several hundred dollars per year (or similar perks) for drinking beer every Wednesday evening as a volunteer fireman. Forming various clubs and user groups to get big discounts on all types of new software, hardware, and advance freebie technical information. Getting hired as a sysop on a BBS to gain free access and actually getting paid a royalty as others call the service.

Receiving free toner for testing to get *negative* per-page toner costs for my desktop publishing. Or, becoming a developer or an *Independent Software Vendor* that gives you lots of free or at least deeply discounted hardware and software. Plus ongoing contacts.

Scams? Yes. And, no, they don't apply to everybody. And any specific RCF certainly will only work for a scant few of you. Your selected ploy does have to fit into the big picture of who you are and where you are now heading. But, if you do tune yourself into these RCF ploys and always ask yourself how your cash flow for any transaction can be reversed, you'll be amazed at how many ways this tool can be put to use for you.

One of the greatest and most general of RCF scams is the *advetorial*. An advetorial is any editorial material that purportedly could provide apparently complete end reader information not easily found elsewhere. While leaving a very strong perception in the reader's mind of who you are and what you have for sale. Along with a very strong urge to whip out their VISA card.

The key to acceptable advetorials is *fair value received*. The reader should walk away from the story with lots of welcome and useful information that would be quite hard for them to find elsewhere. Standalone information that *clearly* requires no further involvement or input from you.

At the same time, you want them to end up feeling that it would be very foolish indeed for them to not get some more from where what they already got came from. Ideally, your advetorial should be strong enough on its own to make all the readers either save their magazine or else tear out your part.

Another useful publishing ploy is the *editorial exchange*, in which you accept ad space as partial payment for editorial materials you submit as an author. This minimizes the magazine's cash out the door while giving you an ad at little or no cost. But never use editorial exchanges for total payment. Always insist on at least a partial cash payment. To do otherwise is working on spec and giving your time away. [#208 ADVETORL.TXT]

Bad Scenes

If you are in the poker game for twenty minutes and do not know who the mark is, then *you* are the mark. By the way, the term *mark* comes from the carney midway where suckers literally had a large "X" dusted on their back with powdered chalk.

Life seems to travel in three year cycles. So every now and then it pays to take an inventory and see if what you are doing and who you are doing it with is what you really want. Are you now handling something for some organization that is being completely thwarted by petty politics or childish ego games? Are the courses you are teaching still relevant? Are you doing what you want with who you want? Are your biases or prejudices hurting you? Do you have all the facts? What is working and what isn't? What is fun and what isn't? Are the hours you are spending on some project paying for themselves or otherwise rewarding you? Are you ignoring obvious new directions? Is a guilt trip being laid on you? Have one time friends become psychic energy sinks? Are church or family demanding too much time?

Just like cleaning a closet, it pays to rearrange the scenery every now and then. Just decide that you are going to flat out stop some activities outright, de-emphasize others, modify others, and begin certain things anew. And actually do it.

As usual, your best way to cause something to happen is to ask for it. Your best way to prevent something from happening is to just say no. The best way to prevent a tug-of-war is to not pick up your end of the rope. And the best way to communicate is to tell someone exactly how you feel.

Delay might be the surest form of denial, but dragging things on out will often only make a bad scene worse. Cut it off *now* by using the minimum possible force on the lowest level.

And *never* talk about it to others.

One of the saddest of bad scenes around here at *Synergetics* had been our foreign sales. Besides displeasing customers and losing time and money on them, we just were not handling

them well at all. So we stopped. Cold turkey. And have no regrets at all.

Investments

Not much new here. If it calls you on the phone, it's most definitely *not* an investment. Nor if it is breaking new highs and drawing lots of attention.

Naturally, you should adjust your investments to suit your lifestyle, your age, and all of your obligations. You do recognize that all investments are cyclical, having times when they do well and others when they do poorly. You avoid collectibles unless you are a collector, and works of art unless you are an artist. You use discount brokers and you read the *Wall Street Journal*.

As before, you invest in yourself first and foremost.

The *Keough* plans are now called 401-K's. Besides providing you with a free alternative to insurance, they do remain an all around good deal. The same goes for IRA accounts, albeit it on a smaller scale.

How would you like a new zero risk investment that pays 18% year in and year out, absolutely tax free? Just pay off your VISA and *credit reserve* bills and keep them that way. There is no other safe investment you can find anywhere at any price that can offer you nearly this good a return.

Supply side economics don't seem to make too much sense in the average money machine. Remember that any dollar unspent can equal *five* or more dollars unearned. You should *always* think of *any* dollar that goes out the door in terms of the number of the incoming money machine dollars that are needed to create it.

I've recently expanded my trading of high beta stocks. Buy low and sell high and all that. Sadly, those great *Henry Lankford* price histories are now themselves history. Quotes today are easily gotten from the on-line services. Unlimited closing quotes at \$5 per month. Or complete stock histories in machine readable form for ten cents a minute at 2400 baud.

I've recently written a very useful stock trading analysis program. One thing the program brings home is that

you will get eaten alive if you are not greedy enough. You'll do much better on longer and larger price swings than trying to second guess things on a day-by-day basis. [#221 GENIEVST.PS & #223 GENIEVST.TXT].

My current strategy is to buy on a 30% drop and sell on a 30% and then sell on any rise of a high beta stock in its "normal" trading range. Should the price seem "high," you get more aggressive on selling and less so on buying. Even shorting on any extreme up move. If the price seems "low," you'll get more aggressive on buying and less so on selling. You keep averaging down, no matter how much it hurts.

Several of the stocks I have found attractive do include *Adobe Systems*, which has consistently given me a 80% average annual return since day one. Others of interest are *Seagate*, *Apple Computer*, and *Chips & Technologies*.

Beyond owning your own home outright, I'm not at all convinced that real estate is that great an investment. At least I've never done well with it. Ignoring hidden closing costs, the real estate commissions tend to be ten times higher than those of other investments. Unlike most other investments, you are penalized for holding land or buildings through property taxes. Your position is a matter of public record. Liquidity is an outright joke. Bank and savings loan fiascos are not. You may have liability, improvement, maintenance, utility, emotional involvement, and collection problems as well. And most property values change much more slowly than a high beta stock.

If this does not dissuade you, be sure to remember that the three most important value factors behind any piece of property are location, location, and location. And *always* get your *own* current appraisal.

PostScript

Every few years or so, a new idea comes along that just leaps out at you with its freshness, its uniqueness, and its overall vibes. An idea that you just know is inherently "right", absolutely "correct", and above all is and will be "you". Something elegantly simple that

you can genuinely grab on to.

For me, RTL integrated circuits; nickel-a-bit shift registers that fired the opening round starting the personal computer revolution (*TV Typewriter*, September 1973 *Radio-Electronics*); the incomparable KIM-1 computer; and later on that Apple IIe. All of these were "ideas of the decade" which I centered several money machines on and profited from.

The *PostScript* computer language falls in the similar category of being inherently wonderful. PostScript is a totally general purpose new computer language that's roughly comparable to Forth without the religion. It is fast and fun to use and a beginner can quickly start creating award-winning results.

As one of its minor and almost inconsequential new abilities, Adobe's PostScript is rather adept at making marks on pages. Infinite variations of mixed text and graphics marks which totally blow away *all* earlier primitive attempts at electronic page makeup. In a totally device independent way that freely lets you use any host computer and any output printer or typesetter.

If your money machine has anything at all to do in any way, shape, or form with dirtying up otherwise clean sheets of paper, then you absolutely *must* be using PostScript. Do be certain it is genuine *Adobe* PostScript.

Good starting points on PostScript are my *Intro to PostScript* video and my *LaserWriter Secrets* book series, and Adobe's *PostScript Cookbook* and *PostScript Reference Manual*. By one of those astounding coincidences that seem to infest much of my writing, I do seem to have several of these in stock for you here at my *Synergetics* [(520) 428-4073]. And the PS on my *GENie* PSRT, of course, is short for *PostScript Roundtable*. [#120 WHATISPS.TXT & #109 RAWPS.TXT]

Patents

What more could I say? Over the years, I have seen many hundreds of examples of money machine people being severely done in by the patent system. Even murdered by it in several heart-attacks-during-litigation cases.

And not once ever did I see anyone approaching the patent system on a small scale and profiting from it.

Once again: Unless you are well within a Fortune 500 context, any and all involvement in the patent system in any way, shape, or form is *absolutely certain* to cause you a net loss of time, energy, money, and sanity. Besides being a psychic energy sink.

The problem is not the patent system *per se*, but the popular mythology that has built up around what patents are and how they are supposed to work. That quarter you mailed in for your classified ad "inventor's idea kit" back in the seventh grade has caused more damage for more people far more often than you can possibly imagine.[#162 NOPATENT.TXT]

Stalking the Wild Paradigm

A *paradigm* is just the way people perceive things to be. And a *paradigm shift* occurs whenever someone upsets the apple cart. Which might happen whenever any vastly new or different way of doing things becomes obvious.

Or when something becomes much cheaper or more widely available.

In general, money machines do not do very well in all those "business as usual" times. It is only when some sudden and dramatic change or other fundamental shift in values takes place that the new opportunities emerge.

Your best opportunity here: *The people who are doing the shifting of the paradigm usually do not have the slightest notion what they are doing, since they will always be rearwardly focusing on the way things were.*

When a paradigm shifts, all sorts of great money machine opportunities immediately open up. Especially if you are quick on your feet and able to view things from a different perspective. Or can reduce the cost of something by 50:1, totally changing the markets to something utterly foreign (and totally misunderstood) by "them".

There are three obvious cases here. In the first, a paradigm shift does not take place and things remain pretty much the way they were. We can call this *Business as Usual*. It's not in the

least friendly to money machines.

The examples of Business as usual technology which seem to be getting nowhere fast are solid state *Peltier* coolers, any alternates to the QWERTY keyboard, and all touch screens. The coolers remain ludicrously inefficient, while the keyboards and screens go heads up against deeply ingrained cultural beliefs.

In the second case, a paradigm shift occurs and someone tries to ignore it. This leads to sucker bets and ratholes into which an infinite amount of time and money can get dumped with no visible effect. One example here is the belief by DEC that personal computers are just a passing fad and that VAX will eventually reign supreme. Other obvious sucker bets today include the *NeXT* computer, the *UNIX* operating system, that *TrueType* absurdity, *DVI* video, and *Teletext* services.

In the third case, a paradigm has clearly shifted and others have yet to take advantage of that shift in a big or mainstream way. We might call these *GoFer* situations. Herein is where the real money machine opportunities lie.

I have recently covered dozens of *GoFer* opportunities in my ongoing columns. But as I see it today, the two biggest opportunity areas lie in *book-on-demand publishing* and *desktop finishing*. Along with a small handful of other interesting new areas where paradigms have clearly shifted. [#243 PARADIGM.TXT]

We will look at much more on these *GoFers* in our next *Blatant Opportunist* column #11. Or on PSRT if you can't wait. [#286 MONEYMAC.TXT]

Microcomputer pioneer and guru Don Lancaster is the author of 26 books and countless articles. Don now maintains a no-charge technical help-line you will find at (520) 428-4073, besides offering all of his own books, reprints, and various services. He also has a free brochure chock full of his new insider desktop publishing secrets waiting just for you. Your best calling times are 8-5 on weekdays, Mountain Standard Time. Or you can reach Don by way of his Synergetics, at Box 809,

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THE ISMM REVISITED (II)

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Let's continue our advance peek at the new update and intro to my freshly revised *Incredible Secret Money Machine* by looking at some emerging GoFer opportunities. Filenames in brackets refer to *GENie* PSRT found at (800) 638-9636...

Book-on-Demand Publishing

Since the original ISMM was first written, things have gone very wrong with traditional book publishing. As an author with 26 books, 2 million sellers, and over 1600 articles in print, I seem unable to get *any* traditional publisher to so much as return a telephone call.

What went wrong? The days of my sending a tech book in and having it promptly published and then selling forever are clearly over. We're seeing all these mergers which left fewer and fewer places to send a book.

Then we had those chain bookstores drive out all of the older mom-and-pop operations. While the mom-and-pops typically had stocked 60,000 titles, the chains usually carry ten copies each of a mere 6000 titles. And those chains will typically pull a book after only 22 weeks on the shelf. Add to this some mesmerizingly awful authors grinding out monumentally atrocious trash on unreleased computer systems that they knew pitifully little about.

Plus the rise of all those infamous *publisher's committees* who, while knowing absolutely nothing about you or your readers, will sit on a book for fourteen months and then reject it as "untimely". These turkeys have honed triage to a fine art. If there were other books on your subject, your market is "saturated". If not, it is "unproven". And if you actually sell some books to verify the market, you are guilty of the unpardonable sin of "skimming."

Along with the creative accounting and horrendous return credit rates that often will make an author's advance the *only* cash they will ever see.

But these problems were all minor compared to the monkey wrench the IRS threw into the works. Believe it or don't, the IRS now *pays publishers to shred books*. In fact, more books have been shredded to please the IRS than were burned in all of the dark ages.

This Orwellian monstrosity has now come about by a requirement that all leftover volumes are carried at their full value, rather than at their scrap or remainder value. A sad result of this monumental stupidity was the virtual elimination of backlists. If a title drops a notch on the best seller list, all of the remaining copies get shredded.

But danger and opportunity are the opposite sides of the same coin. They even share the same Chinese ideogram. The way around this crash-and-burn of traditional publishing is an emerging opportunity that I call *book-on-demand publishing*. By using book-on-demand publishing, volumes are only printed and bound *when and as ordered*.

It is normally much cheaper and ridiculously faster to book-on-demand publish, especially if you do not know how many copies you will actually sell in what time frame.

With book-on-demand publishing, authors can now be paid a living wage. Their royalties can now be paid on an *hourly* basis. As only the needed books are produced when and as requested, there are now zero remainders, returns, damaged, or shopworn copies.

Your changes and corrections can be handled most any time. Each reader's name can be embossed in gold on the cover. Or otherwise customized. And

there are no inventory penalties since you have no inventory. Your time from an author's submission to your final out-the-door sales can be measured in minutes rather than years.

Best of all, you get to make your own mistakes. Which sure beats paying others to make them for you.

As you might have guessed, I am now rather big on book-on-demand publishing. The process works quite well for me now and is getting much better. Within several years, the quality of book-on-demand should be as good as the finest of traditional publishing. At much lower costs. I can eventually see book-on-demand distribution on CD ROM where hundreds or thousands of possible titles share one attractive kit of end user binding materials.

The downside? Book-on-demand is not quite there yet. It does not at all address distribution problems. Binders and duplex printers need improvement, as do the cost controls and production shortcuts. And it is best used for 5000 or fewer known sales.

If I were to try and reduce book-on-demand to a few key secrets, it would go something like this...

1. Be sure to use a fast PostScript duplex printer having a hard disk.
2. Do all your own repair work and toner cartridge reloading.
3. Precompile your own PostScript code for maximum speed.
4. Always edit *after* the typesetting, and *never* before.
5. Keep it simple.

Needless to say, I could (and most probably will) write an entire book on book-on-demand publishing. For here and now, though, book-on-demand is

probably the single greatest emerging money machine opportunity ever. And there are many possible ways to profit from it. [#77 DEMAND.TXT]

Desktop Finishing

At long last, it is trivially easy to grind out high quality custom text and graphics on your kitchen table. The only little trick remaining is converting all those piles of pages into useful final out-the-door products.

Unfortunately, all of the traditional bindery materials and machinery are often outrageously overpriced. Worse still, they are usually marketed only through unbelievably incompetent and impossibly arrogant sales people.

Instead we need brand new ways of handling all of the traditional bindery operations. Delivered directly to the zillions of new small scale end users at sane prices. Perhaps in the form of kits or blister packed semi-kits priced in the \$9 to \$99 range.

I will call this new approach to low end bindery *desktop finishing*. Here's a few suggestions on some of the stuff that's desperately needed...

Simple card slitters— Making your own business cards is easy, but accurately cutting them is not. A way to cleanly cut up the cards is needed, either in a single whump or in a two-step pass.

Toner cartridge refilling— The typical cartridges used in laser printers list for \$135 and are only usable for several thousand copies. Yet you can easily refill any of these with a simple two minute process that costs you as little as \$5.50. While recharging now seems very competitive, lots of opportunities remain. [#224 GURU69.TXT & #226 HACK40.TXT].

Omnicro and Kroy Color— These are two obscenely overpriced and badly mismarketed product lines that convert plain black toner into brilliant colors. The materials are basically hot stamp foils that cost under two cents per sheet in quantity. The process works very well, especially for the spot color on letterheads and business cards.

Heat and pressure— A low cost set of powered hot rollers of a variable and precisely regulated temperature have

lots of new uses for desktop finishing. First for Kroy Color or a sanely priced substitute. Second for the traditional laminating. Third for *Bakerizing*, an amazing zero-cost process that uses a special reusable mylar film to calander toner, making it ultra black, high gloss, and super durable. Fourth for toner transfers to printed circuit boards.

Shear nonsense— The old line cutter and trimmer prices are totally unreal. They start at \$900, and all of the low end manual models are purposely way overpriced to try and step you up to even fancier versions. Instead, we need a \$99 clamping guillotine cutter kit.

Bound and determined— Of the many hundreds of binding systems I have personally tested, a mere four have ended up so much as even marginally useful. These were wire binding, the *Personal Velobinder*, the old *Unibind* system, and Unibind's newer *Pelsaer* covers with printable spines. As I see it, what we really need now for desktop finishing is a fast and simple hot or (preferably) a cold glue binding which lets you use any cover material; allows custom spine lettering, requires less than \$99 in specialized machinery, precisely handles any stack thickness, costs less than one quarter per whack, holds all pages securely, and cycles in under one minute per document.

Anaerobic jogging— A jogger is just a method to shake your papers into alignment. It is handy for gathering and punching, and essential for binding or padding. The cheapest joggers go for \$400 or so. But *Black and Decker* makes orbital finishing sanders selling for \$23.99. It appears to me you might provide some simple pan and floating base snap-on kit to build up your own jogger for around \$30.

The wet dream— This one is pretty far out, but it could open some exciting new markets. Picture a magic machine that you shove toner images in one end, and have them come out the other end wet where the toner image is and dry otherwise. Wet with what? Full color durable ink? Perhaps wet to dust with a thermography powder making raised lettering. Or Braille for the blind. Or wet with superglue. Or wet to dust with fuzzy flock. Or silk screen ink.

Envelopes— Laser printed quality of envelopes today ranges from atrocious at worst to just barely unacceptable at best. What could be done here? Most envelopes are puffy, double thickness, and have a third-layer diagonal flap. What's obviously needed here is a total redesign of the envelope so that your addresses are laser printable upon a single flat and unpuffy sheet that later folds over onto itself.

Several loose ends— We need a cheap corner rounder. And a low end folder, especially one that does stuff other than a simple business tri-fold. Shrink wrapping and vacuum packing stuff can definitely be improved. Something like a *Meals in Minutes* vacuum packer that uses heavier plastic stock. While there already are some ways to handle die cutting on your laser printer, much improvement seems possible. Padding presses used for temporary binding of notepads and calendars. New transfer masks for silk screens and sign cutting. The simple manual coater to apply a varnish or a uv-curing overlay. Sanely priced pad printers used to print upon golf balls, pens, eggshells, advertising specialties. [#76 DTFINISH.TXT]

Other Emerging Opportunities

Naturally, everyone's viewpoint is different. But it does seem to me that both book-on-demand publishing and desktop finishing are probably far and away the greatest two money machine concepts available today. Especially when properly combined with the new PostScript language. Opportunities that could be an end in themselves, or the means to your ends.

It seems to me there are also lots of other paradigm shifts taking place that could lead you on to other new money machine opportunities. Here are a few more technical ones...

Santa Claus Machines— Or otherwise known as *desktop prototyping* systems, these are tabletop systems which can instantly create real parts in much the same way that a laser printer produces hard copies. Some are based on light hardening of a liquid photopolymer, while others sinter powders together.

Direct toner printed circuits— Toner makes an excellent etch resist. All you

have to do is properly transfer it to a printed circuit board. Which lets you etch boards in minutes for pennies, instead of taking months and hundreds of dollars. [#269 DIRECTPC.TXT]

Wavelet theory– It is coming on like Gangbusters. Elegantly simple new math that completely and totally blows klunky old Fourier analysis out of the water. In the process, it is changing everything from picture compression through seismography. There is no advanced electronic topic *anywhere* which will not be profoundly impacted by wavelets. [#158 HACK42.TXT]

Visible laser diodes– The prices are dropping radically, and an easy-to-use \$5 replacement for a helium-neon laser should soon be with us. They are small, bright, rugged, reliable, and are easily powered from a small battery.

Waterknives– The waterknife can cut anything from chocolate cake to steel slabs. Quickly and cleanly. Cool, too. What is required is a low cost home shop radial arm waterknife that does it all. From precision woodworking and dressmaking through pizza slicing.

Magnetic refrigeration– Although still in the lab, magnetic refrigeration uses magnets and special materials such as gadolinium to produce cold as much as fifty times more efficiently than freon systems. While mostly for supercold applications, the process also works at room temperatures.

Navicubes– The first person to come up with a \$5 device that always knows where it is and which way it is pointed is going to run away with a very large bag of nickels. The recent advances in accelerometers, laser gyros, and new navigation services make it possible.

Dildonics– Also called *virtual reality*. Super simulators that combine a total visual display, power gloves, tactile sensors, treadmills, and/or whatever to create an artificial environment. Uses range from mind-blowing multi-person video games to military simulators to architectural walkthroughs. Dildonics will ultimately impact everything from model railroading to microprocessor controlled party dolls. Although I can see some interesting product liability issues arising on the latter.

Brain parity– Within surprisingly few years, machines will be smarter than people. Perhaps within one decade. Driven primarily by stunning advances in low cost but humongous memory chips whose technology is already in place. Which will lead to one of the most powerful and most fundamental paradigm shifts of all time. Ever. There ought to be a buck here somewhere. [#116 EMERGOP.TXT]

Fuzzy logic– Instead of clean cut *yes* or *no* decisions, fuzzy logic weighs factors and deals with probabilities. It thinks more the way that people do and is more adept at dealing with the real world. Important early applications might be in home air conditioning for added comfort at lower cost, and in auto transmissions and engines.

Hypermedia– Information that you can now nonlinearly access six ways from Sunday. Apple's *Hypercard* and Roger Wagner's *HyperStudio* are typical. The model is a room full of Rolodex cards that can hold words, pictures, sound, or activities such as phone dialing or animation. While especially useful for training and in education, hypermedia represents a fundamental new change in how we communicate.

A shared SCSI comm– Nearly all the PostScript laser printers are getting ridiculously and horribly baud rate limited by the klutzy and primitive comm systems in use by Apple and IBM. An instant 50:1 or greater speedup in laser printing times is now possible, based on a two-host local SCSI network. But it is being fought tooth and nail. [#106 GURU64.TXT]

CD ROM– A single compact disk can carry half a billion characters of information. This can be as many as several hundred books. Mailed once a month, a CD ROM is the equivalent of running a modem *continuously* for the whole month and then some. We are now at the chicken-and-egg stage. You can now master your own CD ROM for \$1500 per hundred copies. But within a very few years, erasable CD disks will be as cheap as floppy disks are today.

Fractals and chaos theory– Nobody is yet all that sure what good this stuff is, but it sure looks pretty. Stunningly so. And should the underlying *strange*

attractors for weather patterns and the stock market pricing ever be found, several *very* profound things will be coming down. [#84 FRACTFERN.PS and #106 GURU64.TXT].

AC speed controls– We still don't have an effective and low cost solution to controlling the speed of any small ac induction motor over a wide range. But the first person to come up with one will walk away with a very large bag of nickels. The recent drop in the power semiconductor costs and advances in switching technology now makes some real breakthroughs possible. A related opportunity: Converting car alternators into low cost power stepping motors for robotics and machine tool controls.

Caller ID– There are scads of new telephone services coming on line, but none has created the interest that caller number identification has. Among its other great features, when you come back from lunch, you have a complete list of everyone who tried to call you when you were out. The opportunities with linking number id to value-added computer services are nearly limitless. [#275 & #276 HACK43.TXT]

Once again, the filenames in those brackets show you the *GENie* PSRT downloads that you can grab for more background info. I do have much more available for you on any and all of these topics and others like them. Just give me a call for further references.

Where to From Here?

Well, that's pretty much up to you. But there are scads of reasonable and workable networking opportunities for extending your money machine well beyond what you are reading here.

I do offer a no-charge voice helpline reachable at (520) 428-4073. Your best calling times are during weekdays 8-5 *Mountain Standard Time*, year round.

Yes, visitors are welcome. But note that gurus are supposed to be hard to reach. First because it adds to the mystique and secondly because the Guru's and Swami's Union Local #104 rules demand it. At any rate, there's a seven hour drive involved in getting to the nearest airport. And, sadly, to the nearest decent bookstore or remotely edible restaurant. On the other hand,

the 10,400 foot high mountain in my front yard is appallingly infested with *tinajas* and waterfalls, and my back yard is obscenely littered with many swimmable streams and hot springs. In my side yards are the *Fishhooks* and *Gila* wilderness areas.

I am also currently the sysop for *GENie* PSRT, a forum that you'll find highly useful for money machines, book-on-demand publishing, hardware hacking, meowwrrr pffftting (don't ask), midnight engineering, investment analysis, and our *tinaja questing*. The charge for a typical file download is twenty cents or so. You can get your voice connect info for your area by calling (800) 638-9636. Other areas of *GENie* you might find of interest are HOSB for the home office and small business topics, and DTP for desktop publishing. Plus the free stock quotes, reviews, and the other computer and technical support RoundTables.

A superb money machine magazine is Bill Gate's *Midnight Engineering*. [(303) 225-1410]. I now have a *Blatant Opportunist* column here. But the best money machine magazine of them all does remain the *Whole Earth Review* and their really unique *WELL* online BBS. [(415) 332-1716].

I have a *Hardware Hacker* monthly column in *Radio-Electronics* magazine [(516) 293-3000] plus my *LaserWriter Corner* and *Ask the Guru* columns in *Computer Shopper* [(800) 999-SHOP]. Yes, preprints of these are available on PSRT, and I do self-publish full reprint sets. Book-on-demand, of course.

Columns do have a way of changing magazines suddenly, so give me a call on our helpline to find out what is current or new. We also do custom consulting in a number of fields.

Most of the "good guys" names and numbers of useful suppliers have been gathered together into the *Hardware Hacker* and my *Ask the Guru* reprints, while an annotated summary is found on PSRT. [#80 MYFAVOR.TXT].

Finally, I've now started up a very loose knit consultant referral service, mostly made up of individual money machine ventures. The referrals are free. To get listed as a resource, send

me a letter of who you are and what you do. There is a flat five percent *listee* referral fee, payable on a when and as completed basis.

A Final Thought

Many years ago, I was attending a folk concert. The opening act was a single flute player, performing in front of the closed stage curtains. His job was to warm up the audience for the high priced help to follow.

He was good. Very good.

But as he went along, the music started getting strange and ultimately downright weird. He started playing *chords* on his flute, along with notes having unbelievable tonal structures. Eventually, the music had turned into bunches of impossible sounding and god-awful squawks.

Almost all of the audience got bored and restless as the music seemed to deteriorate. Just then, I happened to notice the friend beside me who had played in and had taught concert band. He was on the edge of his chair with his mouth open.

He turned to me and, speaking very slowly, said simply "You can't do that with a flute."

Of the thousands of people in the audience, at most only five realized they were now witnessing a once-in-a-lifetime performance involving the absolute mastery of a very difficult musical instrument. To pretty near everyone else, it just sounded like a bunch of god-awful squawks.

Always play for those five.

Microcomputer pioneer and guru Don Lancaster is the author of 26 books and countless articles. Don now maintains a no-charge technical helpline you will find at (520) 428-4073, besides offering all of his own books, reprints, and various services. He also has a free brochure chock full of his new insider desktop publishing secrets waiting just for you. Your best calling times are 8-5 on weekdays, Mountain Standard Time. Or you can reach Don by way of his Synergetics, at Box 809, Thatcher, AZ 85552.