

by Don Lancaster

Risk Reduction

You can call it *mythology* or *urban lore*, or anything you care to. But the quaint concept of "get an idea; patent it; and then beat the cash waving Fortune 500 companies back with a stick" is dead wrong. It simply has no rational basis in the real world.

Things flat out don't work that way. They never have. And almost certainly never will.

As we've seen lots of times before, perceiving yourself as an "inventor" and behaving like one is monumentally dumb. All this does is open yourself up to every ripoff and scam in the book. Plus a few that have not yet made print. Virtually guaranteeing you an uneven playing field. One that nearly always leads you to a net loss of time, money, energy, and sanity. Fer sure.

Instead, I'd like to share with you an alternate concept that has worked out quite well for me. And seems to work for the overwhelming majority of midnight engineers who have tried it and profited from it. The concept is this: You perceive yourself as a *purveyor of risk reduction*.

What this can do is completely inside out the problem. You ask yourself just why any manufacturing or marketing company would ever decide to pay you for anything. The obvious answer is that they should gladly pay you for just about anything which genuinely and truly (A) saves them time; (B) saves them money; (C) provides them with instant expertise; (D) increases the awareness and motivation of their customers; or otherwise (E) greatly improves the odds of their ongoing success.

Not only will they gladly pay you for those services, but they will most assuredly keep coming back to you. So long as they still retain the expectation that their involvement with you continues to save them time and money.

And so long as you keep reducing their risks.

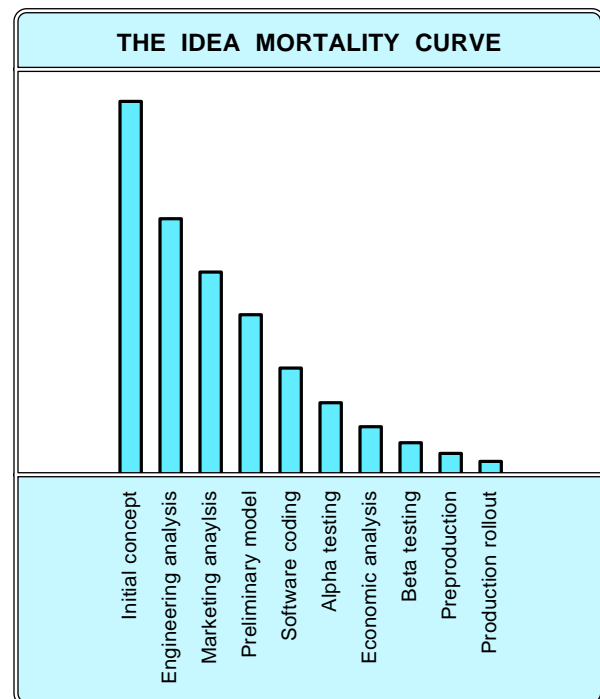
As a purveyor of risk reduction, you can still do most of the things a mythical inventor would do. Except that you dramatically increase your odds of success. And distance yourself from all of the usual scams and ripoffs. What you are really doing is matching your activities to the way the real world works. And then finding those niche activities in which you can genuinely cause things to happen. With reasonable odds of actually turning a profit.

The trick is to position yourself so that you appear to be providing accepted and low key services in an apparently conventional and routine manner. And to break up your offerings into smaller and well-defined tasks.

The reason that being an inventor does not work and that being a purveyor of risk reduction does is very simple. It all gets based upon...

The Idea Mortality Curve

Any raw idea always has a bunch of hurdles it has to get over to turn into a real world product. These hurdles are often called...



Depending on your product, each hurdle may have a different name or might get used in some different order. Regardless, each successive hurdle causes many of those remaining ideas to fail. The net result is that *nearly all of your ideas will ultimately turn out to be bad ones.*

If you are a manufacturer or a marketing firm, your obvious goal is to *get rid of as many ideas as early as you possibly can.* Ruthlessly stomp them out. The longer any bad idea continues, the more it will cost in development time and dollars. And the more you will lose.

The further to the right along the mortality curve, the lower the risk and the faster the time to market. Thus, it pays any manufacturer or marketer to *buy in as far to the right* as possible along this curve. For this reason, getting paid upfront cash for an unproven raw idea is something that just ain't gonna happen. Ever.

The idea mortality curve is very steep. Just how steep?

My first guess is 500:1. Or thereabouts. Five hundred well thought out and carefully considered initial ideas for every ultimate out-the-door product.

The *Batelle Memorial Institute* is a highly reputable old line invention development firm. They accept around 4000 ideas per year, and end up with 8 useful ones.

One of the more blatantly misbehaving "idea marketing" firms discloses that of 2500 ideas accepted, only 5 were actually licensed to a third party. Of these a mere *one* generated a worthwhile net positive cash flow. Once again, the odds seem to be 500:1.

Note that all gambling casinos offer odds ridiculously better than 500:1, as do most state lotteries.

The 500:1 figure assumes that you are a knowledgeable industry insider. Who aggressively uses the trade journals, professional associations, and online resources. And who thoroughly understands the engineering, mathematical, marketing, distribution, and economic underpinnings for the target field. If you are an outsider, your odds are likely to end up worse than 1,000,000:1 instead.

Simply because the gotchas will git ya. Every time.

Thus, churning ideas into real world products with positive cash flows ends up much worse than a crap shoot. *Anything you can do to successfully move a step or more to the right on the idea mortality curve should significantly reduce the risks involved.*

Some possibilities

The concept of "not needing a model" for an idea is ludicrously absurd. If you have a product you want to sell, you should have it well beyond your advanced beta test. Where outside third parties are thoroughly evaluating your designs in a genuine end-user environment. As a general rule, *you have absolutely nothing until you successfully get out of beta test.* Zilch.

The key point here: *The more steps on the idea mortality curve that you are able to internalize, the higher your odds of successfully selling your results.*

A typical company would be infinitely more interested in working preproduction models and software, beta test results, and ready-to-go production artwork. Compared to *ever* paying cash up front for raw ideas.

You can decide which portions of the idea mortality curve to internalize, but *the more the better.* Any move to the right dramatically lowers the risk.

Getting paid

There are a number of obvious payment routes. You can charge a flat fee for a service delivered. Cash and carry. Such as for printed circuit artwork.

You can charge so much an hour for your time. Such as for open-ended research. Or a flat fee plus expenses if materials costs, on-line charges, or travel are involved. Or for books or other high volume products, you can charge a royalty of so much per unit actually sold.

Royalties cost the manufacturer or marketer much less in up front expenses, and can lead to open ended big bucks. The downside to royalties is that you may never see any of them at all. Or too little arriving too late.

Perks and trades can also be useful as *partial* payment methods. Such as keeping gear used for beta testing.

Naturally, all the costs and payment methods must be

clearly spelled out ahead of time. Certainly as written contracts if any big bucks are involved.

As before, you should ask the key question: Which payment system will offer the greatest risk reduction to your client? Consistent with a fair return for you.

My own preference is to usually seek out a flat fee up front, combined with a per-unit royalty. And, if possible, some "keep the equipment" or "vacation travel" perks.

I've often found that *indirect* payments work out better long term than direct ones. These can be book or product royalties, online sysop fees, or simply part of the price of a newsstand magazine. Rather than one firm paying you big bucks, thousands of individuals pay you pennies instead. Largely unwittingly and unknowingly.

Two of my favorite indirect methods are the *advertorial* and the *editorial exchange*. In an advertorial, you get paid for delivering purportedly stand-alone and useful technical information. While leaving a strong urge for the reader to whip out his VISA card. In an editorial exchange, you are given ad credit as partial payment for a technical story. The magazine has less out-of-pocket expense, and the ad can generate additional cash for you.

More on all these concepts on www.tinaja.com and in my *Blatant Opportunist* reprints.

One trick to guarantee flat fee payment from any new or questionable client: Price your work at *twice* the bare minimum you are willing to receive for it. Then demand a prepayment of *fifty percent*. Cash up front.

Mining fallout

There's another route to indirect payments that I like to call *fallout*. As a purveyor of risk reduction, there are times and places where you can profit *even when the underlying idea falls off the mortality curve!* You can do this if your work generates new opportunities along the way.

The work on your project might take you into a new learning area. Or generate leads for technical articles, ap notes, resource surveys, BBS uploads, or even books and videos. Or simply get you to thinking about something in depth. Chance favors the prepared mind.

An example: A potential client once sent me a copy of his woefully abysmal patent. One that clearly violated great heaping bunches of fundamental engineering principles. Would I please give him a list of lower cost off-the-shelf suppliers that make the magic material required?

It was clear at a casual glance that his R&D work was mostly wishful nonthinking. Despite this, I spent lots of time and effort finding out just *why* his patent was a total disaster. I actually did a full formal engineering analysis. At no charge, and on spec.

From the detailed study, I was able to come up with and profitably publish a dozen story ideas that hopefully might prevent others from making the same stupid mistakes. One was on fundamental physical principles. Another a research survey on all those magic suppliers and what they can and cannot do. Another on some electrical basics. Another on the utter futility of patenting untested ideas.

There is a fine line here. Your client will get bent if you steal his idea outright and sell it to a competitor. The trick is to harvest any *intangibles* which can be fairly applied elsewhere to your own work and the work of others.

The amount of fallout can influence your pricing. You'll

want to charge more for any risk reduction purveyance that is so unique or so restrictive that your fallout is limited. On the other hand, if whole new worlds open up, you can often charge less for your direct return.

Two examples

I've often found that smaller projects work out much better than larger ones. Once again because of those risk factors. A project with a total potential return of several hundred dollars is much more likely to turn out well for all concerned than a larger one. And every so often, one of the little jobs will turn into a real biggie.

The unvarnished truth about big job megabucks is that you'll get shellacked every time you go after them.

You do, of course, have to be quite time efficient with smaller jobs. But once you are into the process and rhythm of continuously and reliably producing smaller tasks, they can become more profitable. Especially with fallout. And the small jobs give you higher odds of getting paid.

Let us look into two examples of smaller risk reduction purveyance jobs that worked out well for me...

Dennis Carper runs *Redmond Cable*, a hacker-friendly outfit that makes up custom and stock cables to literally connect anything to anything. Dennis had observed a little known connector on those *Super Nintendo* game machines that could be used to drive video monitors and obtain full stereo sound. Which might give you much higher quality sound and images. Or else unload the kiddiekrons off a prime time tv and onto a junk monitor.

The problem was that the machine couldn't drive a Commodore monitor without tearing badly. So Dennis sent me a Super Ninny, a monitor, and bunches of cable bits and pieces. Would I analyze the signals and come up with a universal "anything-to-anything" game interface?

The Commodore problem was easy. Routine scope work. Commodore, being Commodore, needed upside down sync, and a plain old CMOS inverter gave us a quick cure here. After further study, I designed a two-chip module which could solve most any video game interface.

Payment in this case was a fairly small fee up front that covered my bare bones time and parts costs, an ongoing five percent royalty on all units sold, and getting to keep some of the games as a perk. To this day, the small royalty checks continue to reliably come in.

Fallout did include several [Hardware Hacker](#) stories in [Electronics Now](#) that generated additional cash, created new cable sales, and led to other consulting work.

John Rees is a hardware hacker from the deep south who is into all sorts of unique stuff from weaving looms to lost wax investment casting. One of John's bigger projects is a humongous CAD/CAM sign router he built himself out of local found materials. The key secret to John's machine is using car alternators as power steppers. This offers lots of cost savings over traditional large steppers.

John produced an hour long and rather "down homey" video that demonstrates his router in action, shows you how to build up your own version, and steps you through the details of alternator rewinding, drive hardware, and support software. It was extremely well done.

My involvement was first to convince John he had a winning product. And then to make others aware of his video. This was done for a flat royalty fee of five percent

RISK REDUCTION RESOURCES

Batelle Pacific Northwest

Box 999, K6-54-Watts
Richland, WA 99352
(509) 372-4274

CompuServe

5000 Arlington Center Blvd
Columbus, OH 43220
(800) 848-8199

Dialog Info Services

3460 Hillview Avenue
Palo Alto, CA 94304
(415) 858-2700

Electronics Now

500-B Bi-County Blvd
Farmingdale, NY 11735
(516) 293-3000

Genie PSRT

401 N. Washington St.
Rockville, MD 20850
(800) 638-9636

Redmond Cable

17371-A1 NE 67th Ct.
Redmond, WA 98052
(206) 882-2009

John Rees

Rt 1, Box 1551
Sautee, GA 30571
(706) 865-5495

Synergetics

Box 809
Thatcher, AZ 85552
(602) 428-4073

of the selling price. I did this through my usual mix of tech stories, advertorials, and my online postings. Because I was thoroughly impressed with the quality of John's video and because alternators-as-steppers is a favorite ongoing theme of mine, I could heartily recommend the vid.

John's risk reduction here seems obvious. Instead of his gambling on when and whether a video could be sold and putting up lots of front-end advertising and promotion costs, a fixed flat fee gets paid when and as the videos are sold. John now knows precisely what his promo expenses are and doesn't have to pay them until the videos are actually delivered. And now has a national market.

For more info

I've gathered a few references together into our *Names and Numbers* sidebar. Check here for additional info on custom cable services or alternators-as-stepper videos.

To research any technical subject at any time and any place, I cannot recommend the *Dialog Information Service* too highly. Dialog has recently offered new and convenient cash-and-carry services by way of both *CompuServe* and *Genie*. For as little as thirty cents per title.

A pair of freebie new resources is available from *Batelle Pacific Northwest*. One is the *Inventor Assistance Source Directory*, while the second is their *Prototype Development Assistance Providers*. But don't expect any resource on the second list to buy raw ideas. Noway, nohow.

Much more info on successful idea development and marketing appears in my [Incredible Secret Money Machine](#) and [The Case Against Patents](#) package. Or you can use my free helpline as noted below. ♦

Microcomputer pioneer and guru Don Lancaster is the author of 33 books and countless articles. Don maintains a US technical helpline you'll find at (520) 428-4073, besides offering all his own books, reprints and various services.

Don has a free new catalog crammed full of his latest insider secrets waiting for you. Your best calling times are 8-5 weekdays, Mountain Standard Time.

Don is also the webmaster of www.tinaja.com where a special area has been set aside for Midnight Engineering readers. You can also reach Don at Synergetics, Box 809, Thatcher, AZ 85552. Or email don@tinaja.com

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