Why Smart People Have Bad Ideas

April 2005This summer, as an   
experiment, some   
friends and I are giving seed  
funding to a bunch of new startups. It's an experiment because  
we're prepared to fund younger founders than most investors would.  
That's why we're doing it during the summer—so even college  
students can participate.We know from Google and Yahoo that grad students can start successful  
startups. And we know from experience that some undergrads are as  
capable as most grad students. The accepted age for startup founders  
has been creeping downward. We're trying to find the lower bound.  
The deadline has now passed, and we're sifting through 227 applications.  
  
We expected to divide them into two categories, promising  
and unpromising. But we soon saw we needed a third: promising  
people with unpromising ideas.  
[1]The Artix PhaseWe should have expected this. It's very common for a group of  
founders to go through one lame idea before realizing that a startup  
has to make something people will pay for. In fact, we ourselves  
did.Viaweb wasn't the first startup Robert Morris and I started. In  
January 1995, we and a couple friends started a company called  
Artix. The plan was to put art galleries on the Web. In retrospect,  
I wonder how we could have wasted our time on anything so stupid.  
Galleries are not especially excited about being on  
the Web even now, ten years later. They don't want to have their  
stock visible to any random visitor, like an antique store.   
[2]Besides which, art dealers are the most technophobic people on  
earth. They didn't become art dealers after a difficult choice  
between that and a career in the hard sciences. Most of them had  
never seen the Web before we came to tell them why they should be  
on it. Some didn't even have computers. It doesn't do justice to  
the situation to describe it as a hard sell; we soon sank  
to building sites for free, and it was hard to convince galleries  
even to do that.Gradually it dawned on us that   
instead of trying to make Web sites for  
people who didn't want them, we could make sites for  
people who did. In fact, software that would let people who wanted  
sites make their own. So we ditched Artix and  
started a new company, Viaweb, to make software for building online stores.  
That one succeeded.We're in good company here. Microsoft was not the first company  
Paul Allen and Bill Gates started either. The first was called  
Traf-o-data. It does not seem to have done as well as Micro-soft.  
In Robert's defense, he was skeptical about Artix. I dragged him  
into it.   
[3]  
But there were moments when he was optimistic. And  
if we, who were 29 and 30 at the time, could get excited about such  
a thoroughly boneheaded idea, we should not be surprised that hackers  
aged 21 or 22 are pitching us ideas with little hope of making money.The Still Life EffectWhy does this happen? Why do good hackers have bad business ideas?Let's look at our case. One reason we had such a lame idea was  
that it was the first thing we thought of. I was in New York trying  
to be a starving artist at the time (the starving part is actually  
quite easy), so I was haunting galleries anyway. When I learned  
about the Web, it seemed natural to mix the two. Make Web sites  
for galleries—that's the ticket!If you're going to spend years working on something, you'd think  
it might be wise to spend at least a couple days considering different  
ideas, instead of going with the first that comes into your head.  
You'd think. But people don't. In fact, this is a constant problem  
when you're painting still lifes. You plonk down a bunch of stuff  
on a table, and maybe spend five or ten minutes rearranging it to   
look interesting. But you're so impatient to get started painting  
that ten minutes of rearranging feels very long. So you start  
painting. Three days later, having spent twenty hours staring at  
it, you're kicking yourself for having set up such an awkward and   
boring composition, but by then it's too late.Part of the problem is that big projects tend to grow out of small  
ones. You set up a still life to make a quick sketch when you have  
a spare hour, and days later you're still working on it. I once  
spent a month painting three versions of a still life I set up in  
about four minutes. At each point (a day, a week, a month) I thought  
I'd already put in so much time that it was too late to change.So the biggest cause of bad ideas is the still life effect: you   
come up with a random idea, plunge into it, and then at each point  
(a day, a week, a month) feel you've put so much time into it that  
this must be the idea.How do we fix that? I don't think we should discard plunging.   
Plunging into an idea is a good thing. The solution is at the other  
end: to realize that having invested time in something doesn't make  
it good.This is clearest in the case of names. Viaweb was originally  
called Webgen, but we discovered someone else had a product called  
that. We were so attached to our name that we offered him 5%  
of the company if he'd let us have it. But he wouldn't, so  
we had to think of another.   
[4]  
The best we could do was Viaweb,  
which we disliked at first. It was like having a new mother. But   
within three days we loved it, and Webgen sounded lame and  
old-fashioned.If it's hard to change something so simple as a name, imagine  
how hard it is to garbage-collect an idea. A name only has one   
point of attachment into your head. An idea for a company gets  
woven into your thoughts. So you must consciously discount for   
that. Plunge in, by all means, but remember later to look at your   
idea in the harsh light of morning and ask: is this something people  
will pay for? Is this, of all the things we could make, the thing  
people will pay most for?MuckThe second mistake we made with Artix is also very common. Putting  
galleries on the Web seemed cool.One of the most valuable things my father taught me is an old  
Yorkshire saying: where there's muck, there's brass. Meaning that   
unpleasant work pays. And more to the point here, vice versa. Work  
people like doesn't pay well, for reasons of supply and demand.  
The most extreme case is developing programming languages, which  
doesn't pay at all, because people like it so much they do it for   
free.When we started Artix, I was still ambivalent about business. I  
wanted to keep one foot in the art world. Big, big, mistake. Going  
into business is like a hang-glider launch: you'd better do it   
wholeheartedly, or not at all. The purpose of a company, and a  
startup especially, is to make money. You can't have divided  
loyalties.Which is not to say that you have to do the most disgusting sort   
of work, like spamming, or starting a company whose only purpose   
is patent litigation. What I mean is, if you're starting a company  
that will do something cool, the aim had better be to make money   
and maybe be cool, not to be cool and maybe make money.It's hard enough to make money that you can't do it by accident.  
Unless it's your first priority, it's unlikely to happen at all.HyenasWhen I probe our motives with Artix, I see a third mistake: timidity.  
If you'd proposed at the time that we go into the e-commerce business,  
we'd have found the idea terrifying. Surely a field like that would  
be dominated by fearsome startups with five million dollars of VC  
money each. Whereas we felt pretty sure that we could hold our own  
in the slightly less competitive business of generating Web sites   
for art galleries.We erred ridiculously far on the side of safety. As it turns out,  
VC-backed startups are not that fearsome. They're too busy trying  
to spend all that   
money to get software written. In 1995, the  
e-commerce business was very competitive as measured in press  
releases, but not as measured in software. And really it never  
was. The big fish like Open Market (rest their souls) were just  
consulting companies pretending to be product companies   
[5], and   
the offerings at our end of the market were a couple hundred lines  
of Perl scripts. Or could have been implemented as a couple hundred  
lines of Perl; in fact they were probably tens of thousands of lines  
of C++ or Java. Once we actually took the plunge into e-commerce,  
it turned out to be surprisingly easy to compete.So why were we afraid? We felt we were good at programming, but  
we lacked confidence in our ability to do a mysterious, undifferentiated  
thing we called "business." In fact there is no such thing as  
"business." There's selling, promotion, figuring out what people  
want, deciding how much to charge, customer support, paying your  
bills, getting customers to pay you, getting incorporated, raising  
money, and so on. And the combination is not as hard as it seems,   
because some tasks (like raising money and getting incorporated)  
are an O(1) pain in the ass, whether you're big or small, and others  
(like selling and promotion) depend more on energy and imagination  
than any kind of special training.Artix was like a hyena, content to survive on carrion because we  
were afraid of the lions. Except the lions turned out not to have   
any teeth, and the business of putting galleries online barely  
qualified as carrion.A Familiar ProblemSum up all these sources of error, and it's no wonder we had such  
a bad idea for a company. We did the first thing we thought of;  
we were ambivalent about being in business at all; and we deliberately  
chose an impoverished market to avoid competition.Looking at the applications for the Summer Founders Program, I see  
signs of all three. But the first is by far the biggest problem.   
Most of the groups applying have not stopped to ask: of all the   
things we could do, is this the one with the best chance of  
making money?If they'd already been through their Artix phase, they'd have learned  
to ask that. After the reception we got from art dealers, we were  
ready to. This time, we thought, let's make something people want.Reading the Wall Street Journal for a week should give anyone  
ideas for two or three new startups. The articles are full of  
descriptions of problems that need to be solved. But most of the  
applicants don't seem to have looked far for ideas.We expected the most common proposal to be for multiplayer games.  
We were not far off: this was the second most common.   
The most common was some combination of a blog, a calendar,  
a dating site, and Friendster. Maybe there is some new killer app  
to be discovered here, but it seems perverse to go poking around  
in this fog when there are valuable, unsolved problems lying about  
in the open for anyone to see. Why did no one propose a new scheme   
for micropayments? An ambitious project, perhaps, but I can't   
believe we've considered every alternative. And newspapers and  
magazines are (literally) dying for a solution.Why did so few applicants really think about what customers want?  
I think the problem with many, as with people in their early twenties  
generally, is that they've been trained their whole lives to jump  
through predefined hoops. They've spent 15-20 years solving problems  
other people have set for them. And how much time deciding what   
problems would be good to solve? Two or three course projects?   
  
They're good at solving problems, but bad at choosing them.But that, I'm convinced, is just the effect of training. Or more  
precisely, the effect of grading. To make grading efficient,  
everyone has to solve the same problem, and that means it has to  
be decided in advance. It would be great if schools taught students  
how to choose problems as well as how to solve them, but I don't  
know how you'd run such a class in practice.Copper and TinThe good news is, choosing problems is something that can be learned.  
I know that from experience. Hackers can learn to make things  
customers want.   
[6]This is a controversial view. One expert on "entrepreneurship"  
told me that any startup had to include business people, because  
only they could focus on what customers wanted. I'll probably  
alienate this guy forever by quoting him, but I have to risk it,  
because his email was such a perfect example of this view:  
   
 80% of MIT spinoffs succeed provided they   
 have at least one management person in the team at the start. The   
 business person represents the "voice of the customer" and that's  
 what keeps the engineers and product development on track.  
  
This is, in my opinion, a crock. Hackers are perfectly capable of  
hearing the voice of the customer without a business person to  
amplify the signal for them. Larry Page and Sergey Brin were grad  
students in computer science, which presumably makes them "engineers."  
Do you suppose Google is only good because they had some business  
guy whispering in their ears what customers wanted? It seems to   
me the business guys who did the most for Google were the ones who   
obligingly flew Altavista into a hillside just as Google was getting  
started.The hard part about figuring out what customers want is figuring   
out that you need to figure it out. But that's something you can  
learn quickly. It's like seeing the other interpretation of an  
ambiguous picture. As soon as someone tells you there's a rabbit  
as well as a duck, it's hard not to see it.And compared to the sort of problems hackers are used to solving,  
giving customers what they want is easy. Anyone who can write an   
optimizing compiler can design a UI that doesn't confuse users,   
once they choose to focus on that problem. And once you   
apply that kind of brain power to petty but profitable questions,   
you can create wealth very rapidly.That's the essence of a startup: having brilliant people do work  
that's beneath them. Big companies try to hire the right person  
for the job. Startups win because they don't—because they take  
people so smart that they would in a big company be doing "research,"  
and set them to work instead on problems of the most immediate and  
mundane sort. Think Einstein designing refrigerators.  
[7]If you want to learn what people want, read  
Dale Carnegie's How to Win Friends and Influence People.  
[8]  
When a friend recommended this book, I couldn't believe he was  
serious. But he insisted it was good, so I read it, and he was   
right. It deals with the most difficult problem in human experience:  
how to see things from other people's point of view, instead of  
thinking only of yourself.Most smart people don't do that very well. But adding this ability  
to raw brainpower is like adding tin to copper. The result is  
bronze, which is so much harder that it seems a different metal.A hacker who has learned what to make, and not just how to make,  
is extraordinarily powerful. And not just at making money: look  
what a small group of volunteers has achieved with Firefox.Doing an Artix teaches you to make something people want in the  
same way that not drinking anything would teach you how much you  
depend on water. But it would be more convenient for all involved  
if the Summer Founders didn't learn this on our dime—if they could  
skip the Artix phase and go right on to make something customers  
wanted. That, I think, is going to be the real experiment this   
summer. How long will it take them to grasp this? We decided  
we ought to have T-Shirts for the SFP, and we'd been thinking about   
what to print on the back. Till now we'd been planning to use  
If you can read this, I should be working.  
but now we've decided it's going to be  
Make something people want.  
Notes[1]   
SFP applicants: please don't assume that not being accepted  
means we think your idea is bad. Because we want to keep the  
number of startups small this first summer, we're going to have   
to turn down some good proposals too.[2]   
Dealers try to give each customer the impression that the stuff  
they're showing him is something special that only a few people   
have seen, when in fact it may have been sitting in their racks for  
years while they tried to unload it on buyer after buyer.[3]   
On the other hand, he was skeptical about Viaweb too. I have  
a precise measure of that, because at one point in the first couple  
months we made a bet: if he ever made a million dollars out of   
Viaweb, he'd get his ear pierced. We didn't let him   
off, either.[4]   
I wrote a program to generate all the combinations of "Web"   
plus a three letter word. I learned from this that most three   
letter words are bad: Webpig, Webdog, Webfat, Webzit, Webfug. But  
one of them was Webvia; I swapped them to make Viaweb.[5]   
It's much easier to sell services than a product, just as it's  
easier to make a living playing at weddings than by selling recordings.   
But the margins are greater on products. So during the   
Bubble a lot of companies used consulting to generate revenues  
they could attribute to the sale of products, because it made a  
better story for an IPO.[6]   
Trevor Blackwell presents the following recipe for a startup:   
"Watch people who have money to spend, see what they're wasting  
their time on, cook up a solution, and try selling it to them. It's   
surprising how small a problem can be and still provide a profitable  
market for a solution."[7]   
You need to offer especially large rewards to get great people  
to do tedious work. That's why startups always pay equity rather  
than just salary.[8]   
Buy an old   
copy from the 1940s or 50s instead of the current edition, which has been  
rewritten to suit present fashions. The original edition contained  
a few unPC ideas, but it's always better to read an original book,  
bearing in mind that it's a book from a past era, than to read a  
new version sanitized for your protection.Thanks to Bill Birch, Trevor Blackwell, Jessica Livingston,  
and Robert Morris for reading drafts of this.