



## Stanford eCorner

### From Convergence to Appliance

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Video URL: <http://ecorner.stanford.edu/videos/939/From-Convergence-to-Appliance>

According to Wirt, the biggest factor in determining whether a convergence device is successful or not is the rate of the technical change of its components.



#### Transcript

The other thing that happens is you start--when you have a technology change, convergence is really a way of saying, "Let's slam a bunch of things together here." And this is kind of a good example I found on an airline magazine. Anybody own this watch here? This watch has a complete weather station including--that's a little anemometer to measure the wind speed on your wrist. Important kind of thing. But they basically slammed a bunch of things together here and called it 'convergence'. And as we saw before, sometimes that works and sometimes that doesn't work. And I think the thing that determines whether that works or not for the most part is it depends on the rate of technical change, not really the combined cost. The first arguments people would give you as to why it's a good idea to put things together is, they'd say, "Well, it's a computer inside and we can add some software and it does this other stuff, and it's free. We developed the software. By adding the software, it doesn't cost you anything, and now it did this other thing. And now it does a new thing and it doesn't really cost you more, so why wouldn't we put it in there?" The other rationale is typically, well, it takes up less space.

So you get the combined washer/dryer thing. Or same thing here, you say, "Well, this takes up less space in my pocket than these two things put together." It's another common argument for a convergence. I think the real thing that determines whether something is going to be successful or not has to do with the rate of technological change. And the argument that I put these two things together like with a clock radio--Tom was the only one who's upgraded his clock radio here, but clocks aren't going to change that much. Radios aren't changing very much, either. So when you buy the two together, it's not like you say, "Well, when I upgrade the radio I'm going to have to throw away the clock because they're in one device." That's not a big deal. TV/VCRs, I think the reason we saw a lower incidence here--and out in the real world, it's even a smaller incidence--is people know pretty much that they--I don't think they upgrade VCRs very fast but TVs, you're going to want a bigger-screen TV, you're going to want maybe an HD TV, you're going to want a flat-screen TV. There's been a lot of technological change in television over time, so you know if you get the combo TV/VCR and you want to upgrade the TV, you've basically got to throw away the VCR. If you ask people this, literally they don't always respond that way when they--people have an innate sense of value and they're cautious about adopting things where they're going to have to throw part of it away when the technology changes. So I think that's one of the main determinants.

So that benefit can't really be just 2-in-1 because, really, 2-in-1, a lot of times, unless you get some synergy from having the two together, is not an increased value. And a good case in point is this calculator and the phone here. Everybody here has a phone, everybody here has a calculator. Why is that? Well, it's probably easier to use the calculator than it is to use the calculator in the phone. And do people mind having two devices? No, they don't mind, because it's easier to use. And the thing

that many times people ignore when they think about converged devices is when you add multiple functions, it's basically harder to use. You've got to learn something about navigating it, and the cost of that learning, it is a cost for people to understand how to use it and to get to the function they want to get to right away. And so that's a disincentive to have convergence. I also have down here a picture. This was again in an airline magazine.

This is the showerhead that is way better because it has five showerheads in one. So I'm sure a lot of-- how many people here have five showerhead, showering? Nobody. OK. So more is not necessarily better. So converged devices, you've got to look at those disincentives. You're just adding more to it. Are you getting synergy out of it? And what's the rate of technological change? Because if you've got to throw away part of what you bought it for to upgrade the other part, then it's not such a good value. For appliances, the kind of rap against the appliance, well, it just does one thing. That's a very kind of engineering-oriented approach. From the marketing approach, just doing one thing is actually pretty good because there are really no mass markets.

I mean, to say something is a mass-market thing is basically to say, well, the market's not really defined because generally, as markets mature, they diverge. They don't converge. So you can think about cars as an example. There was the original Model T and you could have any color you want as long as it's black. And now think of all the segments in the car markets: SUVs and compacts and minivans and sedans and luxury cars. There's lots of different markets. And the same person could actually own pickup trucks and big-size trucks and king cabs and all that stuff. One person could own multiple devices because for what they want to use it for, something that's designed for segments can be better than something that's designed to do everything. And there are no luxury--well, there's probably one luxury sport pickup truck, the Cadillac...whatever they're...Escalade pickup or whatever it's called. But products really diverge.

And if you're going to make a product that has a whole bunch of benefits, I'll tell you the hardest thing to do is communicate all the benefits that are in there. If you can say it's a phone, that's a pretty easy thing to communicate and inexpensive from a company point of view. If you have to say, like with this one, well, it's a phone and it's a PDA and it does email and it plays MP3. I mean, that's great, except that my just telling you that. If I tried to tell a lot of people that on television, that's a \$10-million ad campaign to get people to understand that it does all those things. So it's expensive to communicate. And then there's this cost versus value. The cost to upgrade is really the true measure. If you're saying, well, it's great because this costs a little bit less than if I buy these two things separately, that's OK, but if I was going to upgrade either my phone or my PDA anyway, then I'm throwing away sort of half the value that might be in here. And there's the cost to use it.

So utility versus simplicity. Generally, simplicity wins pretty much every time as contingent upon value and all other things being equal, which they probably never are. A good example, this is onboard computers in cars versus iDrive. BMW did this great iDrive thing and they got the big screen and the fancy control and it gives you access. You can go into their menus and find out what's the temperature in your right rear tire if you wanted to. But nobody probably really wants to do that. And it makes it harder to use. So the biggest slam on the BMWs was, they said, "Well, it's hard to use." In spite of the fact, nobody says, "Well, but it's got all this great utility." No, they say, "It's hard to use." And so BMW had to quickly revise the iDrive to make it easier to use. So when you try and do the appliance thing, convergence appliance, they want to do convergence because they've got this great value, somebody could be gaining on you in the rearview mirror because they've got something that's much easier to communicate, much easier to understand. So if you're driving on the road and you see an F-16 coming up your tailpipe, they might be gaining on you really quickly.

So you've got to watch out for that as you go along.