Design Vision

A conversation about the role of design-driven leadership in the product development process

In the later half of January 2006, a group of designers with nearly 50 cumulative years of experience designing products for companies like Adobe, Apple, eBay, Macromedia, Nike, Palm, and Yahoo got together to talk about design vision. It was a concept for which we all had a personal definition -forged by our unique experiences and insights. Yet we all recognized the important role design vision played in our lives as designers so we took the first step toward a public discussion about what it can do for you, your organization, and your products.

A conversation about the role of design-driven leadership in the product development process with:

Luke Wroblewski
Principal Designer, Yahoo! Inc.
Founder/Principal, LukeW Interface Designs
Author, *Site-Seeing: A Visual Approach to Web Usability*

Jim Leftwich
Founder/Principal, Orbit Interaction

Bob Baxley
Design Director, Yahoo! Search
Author, *Making the Web Work: Designing Effective Web Applications*

Dirk Knemeyer
Principal, Involution Studios

DesignVision

Dirk Knemeyer

Great design requires a strong vision. Contrary to currently-accepted dogma, great design is often driven by one key individual who has the skill and experience to distill very complicated problems and contexts into elegant solutions that speak directly to the very essence of the challenge they are faced with.

As mediocre design continues to be churned out by companies with large design teams that do not have a strong visionary guiding the solution, these organizations will begin to appreciate the dramatic financial benefits and organizational success that can be enjoyed through the successful integration of a strong, visionary-driven design process.

Perhaps it is because the business and engineering components so often come before or even instead of a dedicated design effort that the idea of design as a strong, visionary function is not given its just due. But the challenge facing most companies today – and the opportunity for great designers – is that the design of their products is increasingly the greatest opportunity for meaningful market differentiation.

What is it and why should companies care?

Luke Wroblewski

Of all the disciplines involved in bringing a product to life, design is what speaks to consumers. Engineering is the construction of function: enabling products to work. Marketing is the understanding of context: who is this for and what are we telling them. Design is communication: the interfaces, posters, packaging, and ads that speak to potential customers.

As a result, a design needs a voice. It needs a clear message. It needs a personality. This is why products "designed by committee" lack emotional resonance. They are trying to say too many things to too many people: we don't know who they are. A design vision provides personality by focusing a product's message through a single voice. It answers the questions: what is this product? How do I use it? Why should I care?

A product design without a clear vision has too many competing answers to these questions, and we are too impatient to hear them all out. A product design driven by an "automated or rigid process" has the same old answer to these questions. It lacks differentiation.

Strong design leads, therefore, are great communicators: orally, visually, and in prose. They can visualize a product's personality, they can describe it, and they can articulate it in product specs, in copy, and within the product's packaging. Designers without a broad enough (generalist) understanding of communication across different mediums are ultimately unable to provide a consistent voice to products. To me, the essence of capital "D" design is having enough horizontal understanding of a problem to produce a unified solution: a product design.

The problem is design is being segmented into too many specialties (information architecture, interaction design, visual design, etc.) which leaves designers without a complete understanding of their medium(s). If you don't know your medium- how can you communicate through it? How can you give your products the market differentiation that Dirk identified as being crucial to your success?

DesignVision

Jim Leftwich
To me, design vision is a matter of, and directly correlated to, integration. By that I mean the integration of elegantly refined, interconnected, and equally successful solutions across the entire spectrum of problems and needs within a product or system.

While many within the design world pursue linear processes, and embrace well-meaning philosophies such as the user-centric model, real integration – real vision – demands something both more profound and more difficult to achieve.

It's fine to espouse the virtue of user-centered design, but even if all of the user needs for a particular product or system are met perfectly for the present, and yet there is no attention paid to laying the groundwork for future rational extension, growth, and evolution (perhaps because the Marketing Requirements Document didn't call for such), then a greater level of opportunity is squandered and overall value of the vision is lessened. Similarly, if both of these are addressed with an elegantly refined design and evolution strategy, yet there's a failure to cleverly leverage additional complimentary technologies and emerging behaviors and infrastructures in the most powerful and strategic manner (because the designer was not adequately aware of the larger opportunites, or was directed to stay focused on a small-scale solution), yet other dimensions of opportunity are left unexploited. And so on.

In the end, "Big D" design success is not really centered on or around any one dimension, but rather needs to be distributed equally throughout all the interconnected dimensions of a product or system. One part cannot succeed at the expense of another. And it's a misnomer that one dimension should lead or drive all the others. The real key to success is balance and integrity throughout. It has to be aesthetically pleasing (even stunningly so, if appropriate), easy to learn and use, efficient and utilitarian, cheap to produce, problem-free, popular and sought-after, beloved by its customers, designed to allow growth and evolution, and continue making boatloads of money as a return on investment.

Tall order? Certainly. Impossible? Not whatsoever! However, in order to accomplish broad, deep, and long-term success an organization requires one or more generalist integrators (which is what I think is really meant by successful "visionary"). This can be a leader (either at the top in the form of a visionary corporate office, or an empowered individual within an organization), or it can come from a small, empowered leadership group, Tiger Team, or Skunkworks. It can come in the form of a spontaneous initiative, or it can come in response to a stated corporate mission or goal. During my twenty-two year design career I've seen successful and unsuccessful examples of all of these.

The list of dimensions crucial to short-term and long-term success is long, and developing a design that succeeds equally in them all is difficult, even when the way is cleared of organizational obstacles. And unfortunately, many, if not most companies, have substantial organizational, cultural, and political obstacles which make integrated design vision more difficult, or altogether impossible. But if companies are to survive and thrive long-term and provide the most value to their customers, they must have visionary and integrated design embodied in some form within their organization.

And no, it's not enough to simply pay lip service to this idea, or the notions of innovation, synergy, "the learning organization," or whatever the buzzphrase du jour happens to be.

As for why companies should care, there are a number of ways well-integrated and successful design strengthen a company. Strong design can bolster a company's ability to differentiate itself and compete more effectively in the marketplace. Strategic design vision can yield valuable intellectual property and defendable patents. And Design that sufficiently systematized can allow for more orderly and consistent extension and evolution, allowing a company to more flexibly adapt to changing circumstances and opportunities without having to resort to reactionary measures or simplistic feature bloat.

DesignVision

What is it and why should companies care?

Bob Baxley

I want to go back to the original question for a minute because we need to have some common notion of what Design actually is before we can start talking about "Design Vision". Now of course I realize that this is inviting a big giant hairball but let me offer up a definition and see if it doesn't meet with some level of general agreement.

Def: Design is a rigorous, analytical, and disciplined form of problem solving. Its peers include other such forms of problem solving such as Art, Science, Engineering, Law, and Government. Further, as a form of problem solving, Design is optimized for innovation in the same way that Engineering is optimized for construction, Science for discovery, and Art for emotive communication.

Now if that's your definition of Design then there's no real need to talk about "Design Vision" as though it were somehow different or superior to Design as a general practice.

In reading back through the thread, what all of you have been calling "Design Vision" might be more accurately called "Product Design". By that I mean the application of Design as a problem solving method to the large-scale question of defining a product's entire function as well as its form.

So if you put those two ideas together, you arrive at an understanding of Design as a particular form of problem solving most relevant to products and market-segments that thrive on innovation. And contrary to what the readers of Wired and Fast Company might think, innovation at the product level is but one of many competitive strategies a company can choose to employ. There are plenty of examples of companies that did just fine by competing on other grounds: Walmart on price, Dell on service, Coca-Cola on distribution.

Keeping that last point in mind, it's critical for us as practitioners to be intelligent and thoughtful about where we try to insert our skills. If we're to be successful both as individuals and as a profession, we have to focus on the industries, companies, and situations that are most likely to benefit from our unique form of problem solving.

Luke Wroblewski

Though I largely agree with Bob's definition of design as a disciplined form of problem solving, I think it's valuable to characterize design vision differently.

In most product development teams, no one is fully defining (much less solving) the problem across the multitude of considerations that make up today's products: marketing, economics, engineering, packaging, etc. The complexity inherent in each discipline makes it next to impossible for any one person to have a complete depth of understanding for each consideration.

This is why the broad generalist understanding of these considerations (and more) is what Jim and I were stressing earlier. To me it's all about "knowing enough to know what is possible". For example, I don't know enough about engineering to discuss the nuances of SQL Server data structures. But I took enough Computer Science classes to understand how data can be organized on the back-end. Whether deliberately or subconsciously, I use this information in my designs. Likewise, I'm not a content manager. I can't quote from Strunk & White's The Elements of Style. However, I have written enough prose to understand how to structure my writing to get a point across. Again, I use these principles and process in my product designs.

I'm not trying to boast here- I'm just pointing out the more I stretch horizontally, the more my designs function as systems. The more they can communicate in concert. That's design vision to me: being able to unify the diverse aspects of products into a cohesive message. Today's products are massively complex. That's why they often come out significantly less than ideal. It's time for the new Renaissance man to take up the reins of innovation and bring cross-disciplinary execution (call it capital "D" design if you must) to the forefront of the product process.

DesignVision

Dirk Knemeyer

I'm with you on this, Luke: the role of design visionary is essential, and markedly different from that of just design. You captured many of the generalist components of that very successfully. But I'm going to take the definition of design visionary a little farther: I think that this person can actually come from one of three basic places (as opposed to only coming out of design or from the design organization):

First is the CEO/business leader. This is typically someone whose background is in sales/marketing/general business. They have a seemingly natural ability to understand markets, anticipate what people want, and a vague (or better) ability to visualize what will fill the opportunity that lies at this intersection. Think Steve Jobs.

Second is the engineering/reasarch and development lead. This person has a deep understanding of what is possible, and how to make it possible. They also tend to have a good sense for what the market will respond to, at least within a specific problem set, and thus are able to synthesize the potential of the technology with solutions that will actually catch fire and make money. Think Larry and Sergey.

Third but certainly not least is the principal designer. This is someone who is a highly experienced designer, who really understands great design and in one fashion or another is able to create great products with their own hands. They also understand the applicable technology well, as they must be proficient with it to be a designer in the first place. And like the others, they have a good sense of the market. This applies to most great designers.

Each of these people have a broad and generalist understanding of business, technology, and design (or, to use the language you chose earlier Luke, marketing, engineering, and design) through their combination of skill and experience. But – perhaps more importantly – through their senior role in the company they are likely to have the channels, authority, and ability to actually get their ideas made. There are lots of good ideas out there. At different times, most people have probably had an idea that could have made a lot of money. But it is an entirely different matter to have a vision and get it made. That is where design visionaries come in. They aren't necessarily the ones who do the primary creation and assembly, but they see and cultivate their vision through the organization.

Now, I happen to think that designers are most naturally suited to fill this role, given their experience in actually building products and spending a lot of time in the heads of users, understanding how they think and what they respond to. But it is not ultimately "our" unique domain; it is really a role for anyone who has a great idea – and the experience and authority to lead an organization or design team to making it real.

Jim Leftwich

I think Bob made some very salient points regarding the potentially redundant nature of the term "design vision." I think the reason it's been used here has a lot to do with the wide range of what the term "design" has come to mean in the development world. In the overwhelming majority of cases, design is positioned fairly far down the development path, and in some situations is reduced to mere decoration. I'm reminded of the numerous calls I've had from prospective clients claiming that the product "was nearly finished, all except the user interface." Such a statement sounds incredibly absurd, but it was once common, and there are more subtle forms of the same thinking still lurking in many development efforts today.

I agree that Capital "D" Design does indeed necessarily contain a strong component of integrated vision.

I also agree that many companies compete successfully on other terms, though most of the companies that Bob listed (Wal-Mart, Dell, and Coca-Cola) all do successfully utilize competent design in their branding, even if they don't feature it (as say, Target with its designer image and housewares, IBM with its sleek ThinkPads and Blade Servers do). I'm unable to think of a soft drink company at a scale that compares anywhere near to Coca-Cola focusing on design, though some smaller brands do feature unique bottles or labeling (such as Jones Soda).

I'd like to think that it's not an either/or proposition. On the scale that Wal-Mart operates, I don't believe good design can't pay for itself over time. And I'd also want to stress that good design doesn't necessarily mean the most expensive production methods and materials. IKEA produces many affordable household items with very good design, and is an admirable model for a super-scale store embracing design.

Many of the same things and comparisons can be made for companies in the software, web and digital product sectors.

I don't have much to add to what Dirk says regarding the fact that a coherent integrated vision can emerge from either the business/marketing, technical, or design centers in a business. I think he's described a basic truth. In my career I've seen amazingly broad and coherent vision and leadership emerge from each of those professional areas. What matters is that someone has the vision and takes a strong leadership role.

DesignVision

The real enemy to vision and successful (and adequate!) innovation is bureaucracy, stagnation, misguided risk aversion, or simply institutionalized incompetency. I think it's natural for companies to tend toward all of these as they grow and age. One of the worst enemies to continual innovation is success itself. Once a product or system is extremely successful, it often becomes increasingly difficult to continue innovations on the same scale that might have led to it in the first place. This is a strange and unfortunate irony.

I always liked Hewlett Packard's strategy of "kill off your own products," as it addressed this particular danger head-on.

To sum up what I feel about design vision and the degree to which I feel it really represents the successful integration of every component, need, challenge, and stakeholder, I offer the following quote from history. I can't think of a statement that more eloquently expresses my own ideals for what a constitutes a successful, and inevitably beautiful, design. While Palladio is addressing aesthetic beauty, I think it no less describes the qualities inherent in any well-integrated design vision.

"Beauty will result from the most beautiful form and from the correspondence of the whole to the parts; of the parts among themselves, and of these again to the whole; so that the structures may appear an entire and complete body, wherein each member agree with the others and all members are necessary for the accomplishment of the building." -Andrea Palladio (1508 - 1580), Renaissance Architect

Bob Baxley

I can't help but think you guys are getting pretty squishy with your definitions. Reading through the last few comments you all seem to be saying that what is really required is not necessarily a Designer so much as a senior leader with the passion, commitment, and determination to shepherd and defend a product throughout it's complete development cycle. It appears to me that the need for such leadership is a given even if it's also a rarity.

What you seem to be heading towards is the model of Product Designer as Movie Director – a model that captures both the notion of a generalist leader and a single source of accountability and authority. It's a model I also find appealing and potentially useful but at the same time, it's a model that's met with precious little success in the world of high technology.

I don't really have an answer here but the conversation does leaves me to wonder why the list of high technology companies consistently producing "Great Design" starts and stops with Apple. If we can't identify any examples of functioning, design-centric organizations that don't include Steve Jobs, then we need to take a serious look at our profession and ourselves ask why.

Why is it that there are so few designers in the executive ranks of the top tech companies? Are there any? How many Chief Design/Experience Officers are there? What about SVPs? Heck, how about even plain-old VPs? I haven't done the math but I'd be surprised if more than 10% of the top 100 technology companies have any design leadership above the Director level.

It's easy enough to blame this on the leadership class of these companies but that's at best simplistic and at worst arrogant. We simply have to have a better response than, "they don't get it."

And while I agree whole-heartedly with the idea that the product vision should emanate from a single individual, in practice I have to conclude that Design as a profession has, for whatever reason, been largely unsuccessful at producing individuals who can successfully lead at that level.

I wish it weren't so but that's certainly my reading of the situation as things stand right now, in the opening days of 2006.

DesignVision

What about an organization makes it ready for design vision?

DesignVision

Dirk Knemeyer
In business, great design begins at the top. It requires an executive-level acknowledgement and understanding of the power and value of design, and experience in creating an environment conducive to design success. Only then can a strong design vision be realized.

Engineering plays a critical role in determining the opportunity for a design vision. Too often, technology professionals dismiss design as something that is unnecessary, or as something that they can provide as part of their engineering effort. This attitude and approach can eliminate even the basic opportunity for a strong design vision to lead the creation of exceptional products. Engineering must acknowledge that great products come from a balance of each business and design – as well as technology.

What makes an organization ready for design vision:

Past failure. There is no better illustration of how important design vision is than awkward and unsuccessful attempts to execute design without it.

Management support. In the current climate of collaboration and large multi-disciplinary teams, it runs decidedly against the current to endorse and empower a strong design lead that sets the vision and tightly directs the design of a product. Without management support, both the design process and visionary are doomed to failure.

Healthy culture. The more that a company's employees feel valuable, empowered, and critical to the success of the things they are working on, the more amenable they are to a strongly led design process. While the expectation is often placed upon the design lead to be the catalyst for the cultural effects, the reality is that unless the culture is largely stable and healthy to begin with the design visionary will have difficulty being effective.

Clearly articulated strategy. If an organization does not know where it is going or how it is getting there, a designer has little hope of hitting the mark on their design. The more clear and consistent a company's vision and strategy, the more prepared it is for a strong design visionary to come in and create greatness.

What about an organization makes it ready for design vision?

Luke Wroblewski
As a designer that's gone from pushing pixels for product managers to sitting at the corporate strategy table, I feel I'm obligated to present a less rosy vision of the process by which design vision is embraced by a company. Top-level decision makers will latch onto whatever "competitive advantage" or "innovation strategy" is the flavor of the month. They may pay lip service to strategic design without really knowing what it can do for them. They won't know it until they see design vision in action. As a result, the impetus is on the designer(s) to push strategic value to the top of the organization

Business strategy, as practiced at most companies, is a definitive approach expressed as equations and models. It is the creation of a formula for success. Design vision, on the other hand, is the result of the equation.

In my experience, the a-ha moment for corporate strategists and executives has been the realization that design provides an opportunity for a more iterative strategic process that illuminates solutions. In other words, designers can communicate the essence of a product quickly and effectively. It is no longer an equation- it is an experience that every stakeholder can see, hear, and interact with.

This is why I stress the ability to communicate across multiple channels: visual, written, and oral. The description of a product design should echo the experience of using it. The visual presentation of a product should reflect the narrative being used to market it.

Personally, my biggest successes in the boardroom have come through the process of designing. I've uncovered connections, extensions, and limitations that would have otherwise gone undetected if a product strategy remained an "equation" vs. a "reality". This value-add is what, in my experience, has gotten design a seat at the table.

But this seat didn't come from top-down empowerment, management support, or healthy culture. It came from a bottom-up process of illustrating and sometimes questioning the outcomes of "clearly articulated strategies". I've worked with many companies and have rarely seen a strategy be clearly communicated across an entire organization. More often than not, it's a game of "telephone" –each person thinks they heard what the previous person was saying but by the time it gets down to individual contributors -no one knows what was actually said.

This is where the designer's role as a communicator provides an opportunity to become part of the strategic process. Designers can envision and articulate a strategy through words, pictures, and motion in a way that everyone can understand.

DesignVision

Jim Leftwich

I think Dirk's list is a good one, particularly the last three. The majority of my experience has been in driving the design vision, since as a consultant I'm often hired to provide that.

Dirk's first listed reason an organization may be ready for design vision - past failure - can indeed be a motivating factor. However, I'd point out that this is also just as often (or perhaps more often) a cause for organizations subsequently being adverse to bold design initiatives. Past failure can mean a lot of things, of course. But, for example, in the case of failure of a half-hearted design initiative, the lesson learned (albeit wrongly) may be "design is unacceptably risky," rather than "we just didn't get it right this time."

This makes a good case for demanding evidence of past design successes (even if not on the same scale) prior to making a large of corporate bet on an aggressive design initiative.

And just as importantly, it points out the crucial need for effective design and program management. While designers need to have a great deal of freedom and broad license to strategize and integrate across traditional boundaries, it's extremely crucial to have effective design management, advocacy, and coordination as well. This is particularly important in large organizations where the mission is ongoing and long-term. In some situations, particularly when the schedule's, it can be a good idea to have someone other than the designers handle the cross-organizational politics and advocacy (since the designers and strategists need to be focused on the wide range of integrated issues and do so within today's compressed project schedules). In the case of internal designers this can be a superior or the design manager, and in the case of consultants, this is often best done by the inside contact (ideally at a Director level or above).

Luke spoke of the importance of communication, and I don't think that can be stressed heavily enough. Communication, and effective demonstration and persuasion are the most effective tools in championing design and obtaining the necessary empowerment or buy-in (either as an individual or as a design group) within an organization. It may be wrong to ask, "When is a company ready for design vision?," and ask instead, "What is the designer or design group doing to communicate and push aggressively for empowerment to implement broad and integrated design vision?"

What about an organization makes it ready for design vision?

Bob Baxley

Well again I'd have to say that a company is ready for Design when it makes economic sense for them to be so. For example, the market has shown again and again that it is almost exclusively driven by features up to the point that a given product segment hits functional parity. Once functional parity is achieved, products will tend to compete on price, quality, and distribution until those too are equalized. Then and only then, does Design really come into play.

Companies that invest in Design do so not because they want to, but because THEY DON'T HAVE ANY OTHER CHOICE.

Look at Apple. Do they want compete against Chinese clone manufacturers on price? No. Do they want to compete against Dell on service? No. Do they want compete against Microsoft on distribution? No.

So what do they have left? Quality and Design and they hit the ball miles out of the park on both fronts.

We have to remember that Design fundamentally a creative profession largely populated by individuals that have both the attitude and behaviors of artists. Clearly this has unique and substantial benefits but it also presents significant drawbacks. It's not uncommon for a designer to be temperamental, arrogant, inconsistent or just simply time-consuming to manage. Of course that same designer may well come up with the break-through idea that dramatically changes the organization or perhaps even society as a whole.

Furthermore, Interaction Design as a profession is still quite young and has yet to develop the large-scale network of schools and standards required to reliably turn-out sufficient numbers of high-quality practitioners. Design can clearly lead to enormous rewards but in our enthusiasm, we cannot ignore that it also presents a countervailing risk.

So to answer Dirk's initial question about when an organization is ready for Design, I'd answer this: in general, an organization is ready for strong, visionary Design when they've run out of other options.

DesignVision

Luke Wroblewski
I really like the way Jim rephrased our original question: It may be wrong to ask, "When is a company ready for design vision?" and ask instead, "What is the designer or design group doing to communicate and push aggressively for empowerment to implement broad and integrated design vision?"

To me, this is an elegant rebuttal to Bob's claim that design is a last resort for companies that can no longer compete on price or distribution. I don't think a company has to have their butts kicked by the China Price to realize that new and meaningful forms are a decisive source of competitive advantage. They simply need to understand that creativity is a key element of global competition, arguably even more than the flow of goods and services (which can quickly become commodities). Designers are especially well suited to make this fact apparent.

"In virtually every industry, from automobiles to fashion, food products, and information technology itself, the winners in the long run are the ones who can create and keep creating." -Richard Florida, The Rise of the Creative Class

If a company hits the point where they realize that design is their last hope- it's too late. At that stage, they are most likely to simply apply a shallow coat of design: make it pretty so people want to buy it. They've lost out on the ability of design to empower creativity within the organization. As I mentioned before, the design process provides a powerful means of iterating on product strategy. IDEO refers to this process as "build to think""

"When you rapidly prototype, you're actually beginning to build the strategy itself. It's a process of enlightened trial and error: Observe the world, identify patterns of behavior, generate ideas, get feedback, repeat the process, and keep refining until you're ready to bring the thing to market." -Tim Brown, IDEO

I think it's useful to think of design vision within an organization as a champion of creativity. Through lightweight but powerful communication tools (pictures, prototypes) designers can rapidly iterate on creative solutions. Creative solutions, in turn, can provide a significant competitive advantage in the market.

Dirk Knemeyer
Maybe I did not pose my original comments elegantly enough. I said those four factors were "What makes an organization ready for design vision." Really, my point was that those four things are conditions within a company that enable a design vision to actually be successful. So it is less about why or where the notion of empowering design comes from, and more about what needs to happen for design to enjoy success and deliver business results, as opposed to wither away. At the risk of redundancy, let me re-state the four key factors I cited earlier, with comments that respond to some of the dialogue from you all:

Past failure. Most companies don't do design the right way. As a result, the design and product development process is often a failure by the time everything is said and done. Because there is so much industry dogma and momentum toward design as this squishy-feely collaborative feel-good, it is really hard for companies to empower the approach of a strong vision. It becomes a lot easier when people with experience and good judgment survey the waste that results from this more common approach and identify the opportunity a strong design vision can have for the organization.

Management support. As with any against-the-grain approach - which, in general, enabling a strong design vision certainly is - there needs to be top-down support of it. Otherwise, the political maneuvering and protection of personal interests and fiefdoms all but dooms the process. Ultimately the great design will likely come from somewhere other than the boardroom. But without the alignment of key company leadership behind a strong design vision, there will almost certainly not be great design coming out of the process.

Healthy culture. I think this point is pretty self-explanatory, and did not draw any real dissent. If people are generally happy and productive, they are more apt to help something new and different succeed. If the company is healthy, design is more likely to be successful. Strong communication is a component - and often even a driver of - healthy companies.

Clearly articulated strategy. If the company doesn't know where it is going, design has nowhere to go. There must be an understanding of objectives: markets, demographics, psychographics, revenues, acquisition models, distribution channels, customer touchpoints, contexts of product use and interaction - among many others. The better that the company has these sorted out and strategically aligned in advance of the design conceptualization process - for both products and marketing communications - the more successful the design efforts will be

DesignVision

And finally, to touch on Bob's point, I think the model of design being the last resort ("when they've run out of other options") is pretty narrow. While design historically has proven to be a lower order concern - particularly in software companies - that is pursued only as an avenue of last resort, that approach is diminishing every day. And besides, if we look at business as a game that can be innovated and improved upon to win, there is no reason why a company cannot "bundle" design with other key mission-critical product strategies, in order to gain a more sustainable and powerful competitive advantage. That level of sophisticated business design is very valuable. Indeed, with the increasing sophistication and decreasing tolerance of customers for bad experiences, good design is quickly becoming a higher order product requirement. It would be too much to say that the Target approach is replacing the Wal-Mart approach as the best way to win consumers, but there is certainly movement in that direction. It will be interesting to see where the trends continue over the next five years or so. My bet is that creating great experiences - the primary domain of design - continues to become more important. And with it, so does design.

Jim Leftwich
Far be it from me to be the one here to have us all join hands and sing Kumbaya... But I'm going to attempt to map both what Dirk and Luke are saying in context of how I understand what Bob's saying. I believe that these are not opposing views as much as equally true for different types of organizational situations and efforts.

I've stated previously that all design efforts have to be tailored according to the scale of organization and business, timescale of development cycles, type of product or system, and much more. Within that potentially large "much more" is the question of whether a new design initiative is proactive and being pursued as part of a healthy and balanced future organizational strategy, or whether it's done reactively "after all else has failed."

To be fair to Bob's statement, I don't read it necessarily as limited to only those companies that adopt Design after all else has failed, but also to include companies that proactively adopt Design as a differentiating strategy, given their size and relative competitive positioning. He clearly states this when he speaks of companies that have no other choice (presumably from the beginning in many cases) and as such, I can see his statement as covering both proactive and reactive forms of Design adoption by organizations.

I also don't necessarily believe that if a company without an established strong Design culture finds itself at a crises point, that it's too late for Design to make a huge and possibly crucial contribution to its turnaround. But it does have an enormous impact on how such a Design effort would need to be configured in order to work successfully in the quickest and most impacting way possible.

What about an organization makes it ready for design vision?

In contrast, the proactive establishment of long-term Design cultures and strategies is a very different kind of undertaking. One can understand these two different types of Design initiatives within an organization through the use of a medical analogy. Proactive adoption of a healthy Design culture and strategy is like a healthy program of good diet and exercise. The benefits are long term and measurable. Large-scale reactive Design efforts (a skunkworks to rapidly design and develop a significantly new system or project line, after it becomes apparent that the old offering is beginning to fail in the marketplace) is more like surgical intervention. As we know, surgery's often successful when done properly, and can lead in many cases to a long and high-quality life. The same can be said for organizations that successfully adopt Design in urgent, reactive situations.

Also like the medical analogy, [Jim: there's something amiss here.] the costs and relative risks associated drastic measures associated with doing intense, interventional Design initiatives contrast markedly with the lower costs and overall lower stress of an organization adopting a healthy and balanced Design lifestyle before there's a problem.

Both types of Design Vision efforts obviously have their place. Some organizations are "ready" to adopt a strong Design culture as a proactive, "healthy and balanced lifestyle" strategy, and some organizations find themselves in a situation where they need to "go under the knife," or die. Both can make valuable use of broad and integrated Design Vision, but of different types, team configuration, and time considerations. Long-term proactive Design Vision is more accommodating to group consensus and iterative exploration and reflective refinement. Short-term reactive or interventional Design Vision requires, out of necessity of time and need for nimbleness, a much smaller group (or in some cases a highly-placed or empowered individual) to provide the leadership and broadly integrated strategy and plan.

DesignVision

Bob Baxley
Thanks for that Jim. You did a great job of threading the needle and bringing these perspectives together.

Let me first clarify my point about Design as a strategy of last resort. Many companies have realized they are unlikely to sustain competitive advantage by exploiting the traditional levers of business. For example, distribution, pricing, and marketing are all increasingly expensive and difficult battlegrounds. Similarly, many of the feature wars that have been the hallmark of consumer products are slowly but surely coming to a close as consumers have tired of the role of innocent bystanders as documented by Barry Schwartz in "The Paradox of Choice".

As a result, a handful of companies, industries, and even whole nations have entered into the global competition for ideas as well the people who create them -- Designers included. [See Richard Florida's "Rise of the Creative Class" and more recently "Flight of the Creative Class".]

Now look more closely at the places where Design and creativity are truly valued, rewarded, and celebrated - companies like Target, Sony, and Nike; industries like consumer electronics, media, and the Web; and countries like Sweden, Japan, and Finland. In each of these situations, creativity in general and Design in particular, has proven to be a strategic competitive advantage enabling the entity to minimize the competition on more traditional grounds: price in the case of the companies, distribution in the case of the industries, and natural resources or military strength in the case of the nations.

To be clear, I'm not recommending Design as some sort of desperation, Hail Mary strategy. Rather, I'm saying that there are certain companies and industries where the playing field has become so level or the competition so fierce that the risk/reward proposition of Design presents a clear and compelling alternative.

Finally, in keeping with Jim's desire for a Kumbaya moment, I'll sign-off by saying that Dirk's four prerequisites for successful Design is dead on.

Design Vision

Communicating a vision

DesignVision

Dirk Knemeyer

Communication is vital to a successful design project. After all: the final designed product is only part of the challenge facing a company. To enjoy long-term and sustainable success, a company needs a healthy culture, which is dependent upon the people in the organization. If they do not feel like they are part of what is happening, personally feeling ownership and participation – no matter how far-removed they might be – they will not be productive, positive contributors to the good of the organization.

Strong communication can create a feeling of shared vision in an organization, even among people who are far-removed from the actual product or design process. One of my favourite stories – and it certainly may be apocryphal – is about JFK touring Cape Canaveral in the early 1960s. On the tour he came across a janitor scrubbing the floors:

JFK: Hello friend, what's your name and what do you do here?

Janitor: My name is Ray, Mr. President, and I'm helping to put a man on the moon.

The point of the story being, that because of the shared goal and high organizational morale – the product of strong communication, starting with the President himself ("We will put a man on the moon by the end of the decade") and running all the way down – everyone including the janitor saw their place not in terms of the specific role they did, but framed within this ambitious, even audacious, goal. And of course, they were actually successful, in no small part due to the shared vision.

Communicating a Vision

Luke Wroblewski

I'm going to start off with a loose definition of leadership. Leaders establish a vision, they bind their team and stakeholders to that vision, and then drive for results to make the vision a reality.

This vision does no one any good if it cannot be communicated. The team doesn't understand what they are trying to build and why. Stakeholders don't feel their needs are being met and driving for results is next to impossible: people simply don't know where they are going. Luckily, when it comes to communicating a product vision, designers have a full arsenal of tools at their disposal including: narrative, information design, visual design, and prototypes.

Before books, movies, and Web pages stories were used to pass on values, lessons, and ideas. Never underestimate the power of a well-structured narrative that provides the appropriate context for a design vision. Though often rejected by designers, PowerPoint (or any sequential presentation tool) can be your friend by framing the story behind a design. I should also add that "stories" don't have to be long to be effective. In Dirk's example earlier, one powerful sentence was enough.

Through effective information design, designers can illuminate: the progression of a product in the market; the impact of strategic decisions on a product design or ecology; or the significance and design implications of data from research. In other words, information design can be used to "illustrate" context.

Reactions to the visceral level of design are immediate and powerful. It only takes a second to determine if a product appeals to you. When used appropriately this reaction can effectively sell a design vision. If used inappropriately (without context), the effect can backfire.

Prototypes enable stakeholders and team members to directly experience a design vision. Quick prototypes can communicate the core concepts and value proposition of a product only when they are not bogged down with minute details. Don't confuse the working prototype used for testing and getting kinks out of a mature product design with the one used to sell a design vision.

These types of design artifacts can help bring a team or an entire organization together around a shared vision. As I like to say: "design is communication. Use it as such."

DesignVision

Jim Leftwich
Communication begins with mapping and understanding what is to be communicated. And so the designer or design group must have a broad and interrelated grasp (not simply a laundry list) of the human needs, desires, and opportunities for greater value (ease of use, utility, efficiency, aesthetics, and ultimately affinity) associated with the project or long-term strategic vision. There are many ways these can be mapped, but as a visual thinker, I prefer graphical and illustrated diagrams showing elements and interrelationships over bulleted PowerPoint slides when it comes to presenting dimensionally interrelated systems. Though when it comes to sleep aids, I'll admit the superiority of bulleted PowerPoint slides over pills.

I began my career in the early 1980s, a medieval period that predated the age of interactive prototypes. So I developed a method of iteratively designing interactional architectures using a combination of thumbnail storyboards and flow diagrams. Even as interactive tools became available, I still opted for my paper method, as I've always felt it more effectively "laid it all out" in a manner that allowed the flows and options to be more effectively visualized, discussed with other designers and engineers, and refined and edited.

My decision to go with dense and detailed paper-based design also allowed me to avoid the time necessary to program or script mockups, and allowed me to concentrate on more interrelated detailing and/or alternative options for the design (which could then be presented simultaneously presented and discussed).

I've long had the advantage of working very closely and successfully with engineers and others that were capable of grasping and understanding the interaction as presented in the paper flows. And in the majority of cases, they were able to begin immediately and concurrently implementing the designs in the real software or hardware (even if in a rough prototype device), and so this made it unnecessary to produce an intermediate designer's interactive prototype. Much of my work is involved in developing significantly or completely new products or systems, and almost always on extremely short schedules. Use of thumbnails and wireframes and paper flow models gives me the speed and immediate overview necessary to look at the system as a whole. My teams generally follow along or "read" these flows and act out the interaction. It's faster than mocking it up during the exploration phases. We can explore ten ways and get a very good feel for why it's better to go one way than another in the time that it would take to mock up just one interactive Flash piece. Speed and detail and attention to the whole is the priority in the majority of projects I'm developing.

Communicating a Vision

Many times I have produced physical models (either simple foam form models, or highly detailed stereolithography models) in order to get a better feel for the ergonomics and rhythms involved with physical interaction.

In terms of communicating the architecture and higher-level interrelationships occurring in a large-scale system (separate from the work designing and documenting a component product or user interface and interaction flows within such a system), I also prefer illustrated diagrams showing users, interface and device elements, sequential actions and interrelationships, monetary flow, third-party participation or connection points, and other significant components and interrelationships. Often these will consist of multiple graphics, each covering one aspect of the overall system.

I've discovered that in many projects, and perhaps most importantly in large 200+ person government projects, that these are among the only overview documents showing the big picture in significant or meaningful detail.

How would I summarize the importance of design vision communication deliverables? He or she who owns the drawings, owns the vision.

DesignVision

Bob Baxley
The most important part of communicating any design is to clearly and unequivocally state the problem the particular design deliverable is intended to solve. Too often, a designer presents a prototype or mock-up without any context or reference to the problem driving the situation. And without such context, the discussion invariably devolves into a swarm of opinions, conjectures, and personal preferences.

By contrast, if the designer spends the time to properly understand, articulate, and frame the problem being solved, they can pull the audience along with them as they rationally, logically, and inexorably proceed, step by step, from the stated problem to the unavoidable solution.

Showing the logical chain of decisions has to be the mission of all design communication. The question of prototypes versus specs versus PowerPoint versus sock puppets is ultimately an issue of communication strategy and one that is dependent on the sophistication of the audience, the complexity of the design problem, the goals of the products, and the amount of time afforded.

Of late, I've taken to not even looking at visual design comps until the designer tells me what emotion(s) they are trying to communicate. When presented with comps I simply turn them over and ask the designer, "What am I supposed to think and feel when I look at this?"

Too often, the designer can't provide me with a clear and concise collection of qualities, values, or feelings that the design is supposed to elicit and as a result, I have nothing much to offer by way of critique other than off-the-cuff comments and knee jerk reactions -- hardly the sort of things that should form the basis of a design decision.

This is I believe, is the fundamental difference between a designer and a stylist. The former is an analytical, directed problem-solver while the later is a wanderer and a guesser, hoping they'll stumble across something the client likes.

To sum up and as a corollary to Jim's final point: he who can define the problem, declares the solution.

Communicating a Vision

Jim Leftwich
I should quickly backtrack and acknowledge what Luke said about the importance of telling a story as a means of communicating key aspects of a vision in a context that people can readily grasp. And he's absolutely right that PowerPoint (which I disparaged earlier), can indeed do this wonderfully. My comment about PowerPoint wasn't really a comment about it as a medium, as much as a reaction to the innumerable bullet-point presentations I've suffered through over the years. So little within corporations is presented in an effective interrelational manner, either visually or, as Luke suggests, in narrative story form. Most of the time, meetings are plagued with these awful bullet-pointed slideshows.

A laundry list of bullet points is to a whole and integrated vision what a list of types of musical notations is to a symphonic score. It's important, of course, to discover and manage needs and requirements, but this is unfortunately where too many design processes stop. Too often, the focus remains centered around the checklist of features or items, and the design process really becomes about "bolting them all together and putting a pretty skin over the whole mess."

To avoid confusion, I should again point out that a lot of my projects involve developing platform-level OS UIs and frameworks for associated applications. This is a very different endeavor than designing in other areas, so my methods and approach come from my experiences. The challenge in rapidly developing these types of systems requires iteratively designing at two scales simultaneously:

1 Developing an overarching theme, interactional language, and set of consistent patterns from which all individual and specific types of interaction can be embodied And...

2 Developing each of the individual sub-parts (i.e.: modal divisions, functional sequences, procedures, etc.) using the common language and pattern.

As you can see, this presents something of a chicken and egg problem. It's impossible to develop the overall interactional language and patterns (the OS level language) without knowing a great deal about the needs that arise within the required functions and activities (applications level). And vice versa. It's necessary to have some sense of a consistent pattern of interaction in order begin laying out and designing the interactional flows with some sense of consistency and order. By working at both scales simultaneously back and forth, it's possible to see commonalities and patterns emerging, and this provides opportunities for establishing the overall interactional language and patterns. Then, as this begins to take form, it can be applied back across all of the specific parts of the system. Iteration by iteration this becomes refined and well-integrated.

DesignVision

Evolving flow diagrams and a simultaneously evolving compilation of archetypal interaction elements and usages (a style and interaction guide) become the communicational tools that begin to bring consistent form and integration to this type of whole system.

In this way, the "vision" at the beginning is not necessarily a complete idea for how the final product or system will look and feel, but rather a vision of what type of integration and wholeness will be necessary for initial and long-term success.

While we'll use mockups and prototypes for some aspects of systems like this, large-scale printed wireframes and storyboards are the primary communication tools my teams use to keep both the big picture and the details coordinated during development. Using these efficient methods, we're able to bring a great deal of detail and consistency to complex products and systems, such as platform OS GUIs and associated suites of applications, or multi-device and software infrastructures.

Luke Wroblewski
Guess it's my turn to acknowledge we're all singing kumbaya. Jim outlined a number of design artifacts that help with communicate and sell a design vision: thumbnail storyboards, flow diagrams, physical models, and architecture diagrams. These reiterate what makes design artifacts great communicators: information-rich, highly visual and compelling narratives that express both the macro (big picture) and micro (detailed) levels of a product vision.

Bob pointed out these artifacts loose a significant amount of value when presented without a clear definition of the problem they are addressing. Dirk started us off by stressing the importance of communication across an organization when trying to make a vision reality. So it seems we all agree that:

Clear communication is imperative for binding teams and stakeholders to a product vision.

Design artifacts and designers are particularly well suited to communicating that vision through: information design, models, narrative, prototypes, diagrams, and more.

In order to be effective, these artifacts needed to be presented in context. For Bob, this means a clear problem definition. For Jim & I, the narrative unifying the problem and solution is paramount.

Communicating a Vision

We might, however, have different perspectives on how best to illustrate that narrative and thereby design vision. In my field (Web application design), I've had great success starting with highly refined product designs (mockups if you must) that begin meaningful conversations about the holistic design systems they imply. Other designers often opt for architectural and flow diagramming first – a process I've used many times as well. You can think of the difference between these methodologies as bottom-up and top-down design vision. Which one works best depends on the domain of the product (Web, mobile, physical) and your client's perspective (product, business, engineering).

I've often found the top-down approach starts the process off with a bit too much abstraction for most of my clients (predominantly business and product owners) to understand. It can be quite a challenge to grasp product implications from an architectural diagram when you are not directly building or designing the system. As a result, I prefer to quickly sketch out architectural and flow diagrams for my own understanding, which I don't initially share with clients. Instead I begin a very direct conversation by bringing visual design, interaction design, and information architecture decisions to the table all at once.

Once the conversation starts, I share high-level design artifacts such as information architecture diagrams to broaden the dialog to an entire holistic system, since the implications of higher-level decisions have been made understandable through the initial set of refined product designs.

Regardless of whether you communicate a design vision with top-down or bottom-up design artifacts, the important thing is start the conversation off right. If your client is a product manager, a refined mockup might work best. If you're working for the VP of engineering, architectural diagrams may be better.

Too often, it seems that designers choose to make their full process visible right away instead of starting things off in a language their clients already understand.

DesignVision

Dirk Knemeyer

Yeah, Luke, it definitely sounds like we are in accord on the importance of clear communication, design artifacts, and context. From the standpoint of actual design tools, unless I'm misunderstanding you Luke, I'm quite surprised that you start the process with mock-ups. Getting back to the power of communication, in my experience, you need to get some stakeholder involvement and buy-in a little earlier in the conceptual process.

We've been very successful at Involution Studios with using both of the extremes to communicate our software design decisions: very early on, to go through box exercises and very low fidelity wireframing that is akin to magazine or newspaper art direction. That is, communicating a variety of the most basic structure and flow possibilities of the product, including pros and cons to the different approaches. Philosophically, we believe there are various correct solutions to each software design problem, and this low fidelity approaches helps other stakeholders to think through and understand design solutions, becoming part valuable co-creators in the process. From there we go straight to very high fidelity mockups similar to what our final interface design would look like. We've found that both stakeholders and users need this degree of fidelity in order to test and validate the design. However, without first going through the purely structural/architectural steps, I don't think stakeholders would fully appreciate the essence of the design, or have the context to make decisions and back what we're doing as product designers. So I'm interested in how your process accounts for these things, as well as the issue of buy-in.

Changing gears for a second, one thing we talked a little bit about offline was that we largely are communicating with different audiences, or coming at this from different problem solving perspectives. I wonder if it would have been valuable to explicitly define our respective contexts right up front, to better communicate to each other and our audiences what is framing our positions on these things.

Heh. It all comes back to communication!

Communicating a Vision

Bob Baxley

Not to break up the kumbaya moment but I think you guys have ventured a little far afield of the actual topic here. The original question was about communicating a product vision not about communicating an actual design solution. Those are two very different beasts and typically involve very different audiences. Although I can't say I've had a ton of success selling or communicating actual vision, in this context it's the more salient topic so I'll focus there.

The single best tool I've found for communicating vision is the concept statement. The idea is simply to describe the core essence of the product in a single sentence. Although it might sound like a simple thing to do, the act of forcing the expression down to a single, concise sentence imposes a level of discipline, committment and clarity that is all too often lacking from software development projects.

The best example I've encountered is Walt Disney's description of Disneyland, "The Happiest Place on Earth". In a single sentence he managed to express the entire philosophy and experience of Disneyland, providing clear and unambiguous guidance for a plethora of business, service, and design decisions. Fifty years after Disneyland opened, you can still see the committment to this vision in everything from the placement of trashcans to the length of the crew shifts. For more about concept statements, check out this article by Gerd Waloszek at the SAP Design Guild site or my book, "Making the Web Work".

For inspiration I'd return to Dirk's opening comment and encourage everyone to read Kennedy's famous "Address at Rice University on the Nation's Space Effort" as well as the "Special Message to Congress on Urgent National Needs" (skip down to the Section IX, Space). Notice how he describes the goal as well as the timeline and difficulties as well as how he inspires his fellow citizens without downplaying or ignoring the very real dangers and sacrifices required.

Regardless of your political leaning, the speeches are worth reading because they remain the only successful model we have for uniting a large group of people in a single cause unrelated to survival or equality. That's not to say that creating a software experience is quite on par with sending a nation to the moon, but clearly there's a lot to learn from them in terms of inspiration and leadership and vision.

And finally, to wrap the two ideas together, we might look to this passage as the concept statement for the Apollo mission: "...I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth." Perhaps not as concise as "The Happiest Place on Earth" but certainly clear, direct, and ultimately successful.

Design**Vision**

Getting it done

DesignVision

Dirk Knemeyer
Design is about creating things: visioning a solution and then rolling up your sleeves and making it real. Any steps or documentation used in the design process should either be essential to the actual creation itself, or an important component of the communication process. The goal must be clearly focused on getting the product built and getting it out to market. Great design isn't just about innovative solutions: it is about working within constraints like budgets and deadlines and ship dates.

Today, conversations about design often center around artificial process tools like personas, or how design professionals should work together, or busy work like a usability assessment. Lost in all of the noise is the basic fact that design is a process of creation, and empowering someone to create an effective solution quickly cuts through all of the clutter the typical conversation brings with it. In this case, I'm not using "process" to describe a series of steps that are blindly followed, often by rote: process is, quite simply, the way someone accomplishes something. And we need to start freeing designers to apply their own process and approach – that results in great design – instead of expecting them to apply specious methods that might be appropriate for specific context but are not appropriate for each design situation, or every designer. "Getting it done" means hiring the right people and empowering them to do what you're paying them for.

Getting It Done

Luke Wroblewski
I agree with Dirk that putting forward the right design vision requires focus and thereby a different approach from our all too frequently applied "artificial process tools".

Broad generalist research of what is going on in the market and within your organization can pave the way for a design vision that hits the mark. I've found that when you have the right breadth of understanding, you don't need a large amount of time or deterministic processes to compile an effective product design. A natural path usually illuminates itself for you. When your entire understanding of the problem space is measured in depth, however, thinking broadly enough to assemble a design vision is challenging and time-consuming.

Personally, I try to go out of my way to form relationships outside of my immediate team and discipline. This helps broadens my understanding of the solution space. To echo Bob's corollary in part 3 of this discussion — "he who can define the problem, declares the solution."

I've also found in my work, that the person (or people) driving a design vision can't leave the product before it is done. There's a tendency within companies to rotate strategic teams in and out of projects. Come in, provide some strategy, then its off to the next product. More often than not, the vision a rotating design strategy team provides only makes it out the door 40-60% intact. A design vision needs to endure many obstacles on its way out the corporate production cycle- its best for it to have its champion or champions alongside.

DesignVision

Jim Leftwich

I've spent a great deal of my career working alone, or with one or two other collaborators (not counting periodic working sessions with engineers and executives), and have enjoyed a great deal of freedom and empowerment from this configuration. However, I've evolved in what I feel is the most effective working configuration for today's design world, which is a somewhat, overlapping team of experienced generalists who as a group cover design (all aspects), strategy, business, marketing, engineering, and manufacturing/implementation.

This shift comes from two driving factors. First is that at the beginning of my career I was mostly isolated from others in the field of design, and having been trained in a very European style of broad generalist industrial design, I felt comfortable being a one-man band. Plus, I often didn't have a choice. I had aggressive and broadly encompassing design strategies, and had to devise ways to document and get them implemented without the help of a larger collaborative group. Through experience I learned what worked and what didn't, and built on my successes and discarded failed strategies.

As time went on though, I met and began to collaborate with others that shared my generalist approach and broad design philosophy. Over time it became easier to find others to collaborate with on consulting projects, and this in turn enabled the scale of my projects to increase.

But another factor throughout the 1980s and 1990s also made group collaboration increasingly valuable, and that was the acceleration and compression of development schedules. A project that may have taken one to two years in the early 1990s (for example a medical device, or an electronic program guide system for television) was shortened to a year, and then six months, and today perhaps three months! A designer that wishes to maintain the same level of detail and breadth of solution is faced with two possibilities – eighteen-hour days or collaborate.

Fortunately, collaboration is not only more efficient and faster, but it's also more enjoyable, if the team chemistry is positive and compatible. My most enjoyable design experiences have been intense white boarding and development sessions with groups of similarly broad-based generalists, together covering an amazingly wide field of criteria and interrelated needs.

With such teams of generalists, very complex and detailed design projects can be undertaken and successfully completed in very short time frames. Not all designers are cut out for such intense and often demanding initiatives. But for those that are, great achievements and the rewards of knowing how much was accomplished are often a strong motivating factor.

Getting It Done

More and more it's becoming apparent that the design world, and particular the field of interaction design and information architecture, need real world examples to lead the way. Our field is now beginning to mature and learn what the older and more mature fields of architecture and industrial design have shown for a long time – that it's not about the talking, but about showing what's been done. Therein lie the real lessons for our field. Bottom line? It's all about less pie-in-the-sky and more rubber-meeting-the-road.

Bob Baxley

I want to go back to something Dirk said at the outset, "Contrary to currently-accepted dogma, great design is often driven by one key individual." I didn't take issue with that in the first segment but given Luke and Jim's comments here is worth exploring a bit.

While I agree that great design *can* be driven by a single, key individual, such a situation should be considered both risky and unhealthy. I manage a team of nearly 20 designers and it is a critical part of my job to make sure everybody has a design buddy. Although we can't always dedicate the resources, it is clear that both the designers and the work product benefit when people work in two-man teams. We are social animals by Nature and rare is the individual who can continually and happily face the creative challenge entirely alone. That's not to say that there aren't some unusually talented polymath designers floating around out there – Jim and Luke are obvious examples – but these people are as rare as Hayao Miyazaki.

But more specifically to the question of getting it done, the single most important factor is establishing and maintaining a rhythm. There is nothing like daily stand-up meetings or weekly review meetings to keep things moving forward. Without such a rhythm is all to easy to slip into a pattern of procrastination and fear, further compressing schedules that were unrealistic to start with and robbing the designer of the necessary time for exploration, failure, and recovery.

It goes back to what I said when we started this thing, Design is a rigorous and disciplined form of problem solving and like any discipline it requires repetition, rhythm, and resolve.

DesignVision

Dirk Knemeyer
Bob, lets clarify your comments about the team at Yahoo!: yes, it is a large team, but they each have responsibility over the design of different things. That is an important distinction to make. Speaking, at least, for myself, when I talk about design vision being driven by one ultimate decision maker, the essence of that point is that a product, or isolated components of that product, should be owned and driven by one key decision maker, who I'm calling a design visionary. The model at Yahoo! does not contradict this; rather, you are working on lots of product and components and have a big team of people working on them.

Now, the methods you are using at Yahoo! – buddying people up to provide feedback on work, getting each other into one another's design space to take advantage of different experiences and insights, regular meetings to share and discuss – represents excellent design management in a large, design-focused organization. But unless I'm mistaken, the designers you've hired do have primary ownership on some degree of the products they are working on. Can you clarify that a little more, particularly juxtaposed with the idea of design vision being driven by a senior designer?

Getting It Done

Bob Baxley
I'm going to take a bit of a circuitous route to answer Dirk's question so please stick with me for a minute — I'll get there, I promise. When you look at organizations that are continually and repeatedly producing world-class products they are invariably driven by a CEO who has a passion for quality, a vision for the company, and an obsession with perfection. In short, you have a leader not only with a perspective but with a particular kind of perspective. Steve Jobs is the all too often mentioned example but others include Yvon Chouinard at Patagonia, Walt Disney in the golden age of Disney, and John Lasseter at Pixar.

In practice, while the designers in these companies certainly have control over the physical form of their creations, they rarely originate, own, or control the larger product vision as you've described it here. With every interactive product I've worked on, there were substantial engineering, time-to-market, and sales constraints affecting the product; constraints that required trade-offs and balances that designer professionals are not particularly well equipped to make.

I'll go back to something I said in an earlier post: Design is a form of problem solving optimized for innovation – not necessarily invention and certainly not for profit.

So finally to Dirk's question: in terms of responsibility and control, the thing that EVERY designer controls is what gets created. As the person responsible for making ideas visible, all designers control which ideas are eventually expressed as well as how they are expressed. Is that control over the entire product vision? Not really. It is however, a critical and significant part of the process.

I want to wrap up with a thought about this lone designer concept. I think what we're all trying to achieve is a product, experience, or artifact that feels like it is the product of a single mind. Obviously that's most easily achieved when it actually is the product of a single mind. However, with proper management, leadership, and commitment, a team of collaborative multi-disciplined individuals is not only just as capable of achieving this but is also more capable of achieving it at a large scale.

DesignVision

Luke Wroblewski

Bob, you mentioned that "unusually talented polymath designers" are extremely hard to find. Throughout this discussion, I've been defining these mythological creatures as designers that understand and implement iterative holistic communication.

You mentioned that "what gets created" is ultimately the responsibility of every designer because they are the ones that make ideas visible. Sounds like the perfect role for our mythological polymath, no? So why don't we find more of these elusive creatures in the wild? I'll put two ideas out there:

1.Many design organizations and their processes don't provide opportunities for mentorship. Projects move very fast and junior designers are quickly dropped into a rapidly moving timeline to "sink or swim". Those that can hold their breadth for a while might learn to do relays but most just keep treading water. Instead of real mentoring, junior designers get the "artificial process tools" Dirk described at the start if this conversation. These methodologies often enforce how design fits into business and engineering constraints more than they provide education in real-world design vision. Designers aren't taught to be communicators, they're taught to be implementers.

2. Design education and design critics are rooted in theory. My experiences setting up and teaching graduate and undergraduate level interface design courses gave me a detailed view into how ill-equipped higher education is to provide relevant, holistic design education. I struggled for months to bring together professors from Computer Science, Library & Information Sciences, Human Factors, and Graphic Design to create an interface design sequence that would develop the kind of broad principles required for real world product design. Most departments are seeped in their own theory and not in "rubber meets the road" approaches to education. I have further evidence of this in the emails I receive from aspiring or novice designers that seek direction: "where can I go to learn more?".

What I think this all boils down to is what I hope comes out of our conversation: a recognition and ongoing discussion of the role of design vision within organizations and product development processes. And perhaps, more importantly, an effort to seed and grow the skills and approaches that define design vision in the next generation of designers.

Getting It Done

Jim Leftwich

Throughout this Design Conversations series, one difference between us has become clear, and I believe it's formed the context from which our individual comments, judgments, ideas, and pronouncements have come. This difference is in where our design careers have taken us, the nature of our projects, and the ways and approaches we've developed for solving very different kinds of problems. For this reason, I don't think we can talk about "Design" as though it's some kind of monolithic thing. The issues inside large internal, permanent design groups are extremely different from consultancies and skunkworks. It's as different as regular Army infantry and Special Forces.

My career experiences have taught me a lot about "getting it done," as this is more important in consulting and skunkworks projects than anything else. You're not there for an indefinite period of time. You're there to make it happen successfully in a short period of time, and in a way that will insure continued success afterward.

I don't buy the notion that design by individuals or two or three broad-based individuals covering design, engineering, and marketing/business angles is inherently "risky" let alone "unhealthy." It would be unwise to give the steering wheel to designers that hadn't previously and successfully undertaken projects of similar scale and scope to what's being considered. But if the designer or small team has been building experience and success on aggressive and large-scale projects, then giving them a similar or slightly larger responsibility is not inherently or significantly risky whatsoever. And furthermore, I believe a lot more designers are capable of pushing themselves far further than conventional wisdom generally admits. There's so much self-limiting talk in the design and development fields. Broad declarations such as, "Designers aren't much good at this or that," or "While some braniacs from the planet Krell are capable of doing large-scale breakthrough design, most designers aren't."

Such beliefs and statements strike me as dismissive and unnecessarily limiting. Fear-based risk aversion is poisonous to Capital D Design, in my view.

One thing I've noticed in the design community is that at first you hear designers or individuals can't do some particular thing. Then if alternative evidence is presented, the claim then gets changed to, "Well, okay, but that's just these special individuals, and they're an exception." Why would such a sentiment be expressed, if not to try to warn other designers that they shouldn't be getting any wild ideas that they might be able to do something like that. (insert scowling emoticon here) Grrrrr.

More designers should take more risks. Instead of limiting themselves, or listening to those that claim they can only do so much, they should think expansively. They should try to do things beyond what's merely asked of them. They should realize that they can learn about business, and realize why any design that's not concerned with making profit for the company, is a design that's failing. They should know that they can very well be inventors, in addition to being innovators. And design is an excellent field in which to invent, as it's in a prime position for recognizing intersections between fields, technologies, methodologies, and financial structures. This is what I'd like to say to the next generation of designers.

My experience has been in small and fast-paced skunkworks teams of three to five people. The individual team-members are brought in on a project-by-project basis. My loose confederacy of collaborators tackle everything from industrial design and mechanical engineering, to software development, to user experience, to marketing and business strategies, to intellectual property strategies and patent support. Some of these skills were not learned formally, but picked along the way, by doing a little of it, and striving always to learn more and do more. It's a long process, but over our careers, we each accumulated a wide range of interrelated skills and experience putting them into practice. And we're mentoring younger team-members, so that they'll eventually be able to do more and more. Luke's right on with his comments on the importance of mentoring. It's the key to developing larger numbers of broad-based, experienced, and visionary designers capable of pushing us farther forward and faster.

This approach has evolved so that we can drop into a wide range of challenging technology and business situations at all scales from small to very large, and deliver a highly integrated, multi-dimensional design solution. When all is said and done, it always comes down to getting it done. We just want to do it successfully, with fewer people, and as fast as possible. This is a model I'd like to think could become more common in the next generation of designers. It fits with an ever-expanding realm of technology and systems needing effective design solutions.