

## The Things You See

In Conversation:

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# 1

**GK VanPatter:** In *Unidentical Twins* we shared a transformation story from our perspective as we experienced it in person over the course of numerous years. In follow-up to sharing *Unidentical Twins* we thought it might be useful to others if we invited a few thoughtful thinkers and doers to construct some conversation around the broader notions of transformation as it may or may not apply to what each of us are being asked to do today and how we are doing what we do.

Since we are all busy out there in the marketplace doing real work we thought a four-way conversation would lighten the load on each of us while broadening the perspective. This will be somewhat of an experiment since this is our first four-way conversation.

I have never met any of you so I really have no idea what your points of view are today in any kind of detail. I do understand that some among us have been and or are involved in the Information Architecture community and other communities. Since we come from different backgrounds, are different ages with different practice experience, and reside in several different countries it is likely that we see things occurring or not occurring quite differently. From the outset of NextD we have sought to be global in perspective since our readership is global. In doing so we often found ourselves at odds with the prevailing community views in the US.

In conceiving *Unidentical Twins* we sought to share a rather complex story that connects the past, present and emerging future. Since Elizabeth and I were once part of the early Information Architecture community we sought to point out that there was another stream of Information Architecture related activity that was born during the early days of the dotcom era that was and is today quite different from “findability”.

The purpose of publishing *Unidentical Twins* was to make use of the knowledge that we have within NextD. As we read Morville’s Information Architecture 3.0 manifesto and the direction he was suggesting we recognized aspects of that strategic future as the past from ten years ago in our own story. There was huge irony in that but it was quite clear to us that there was not widespread awareness within the Findability Information Architecture community that the twins birth event had occurred and that it likely has present day consequences.

Seeing that unawareness we thought it was the right moment to retell that story for any who might not be aware of what had occurred historically but most importantly *Unidentical Twins* connected the dots to the present day marketplace, and the strategic space race that is underway today due largely to the forces of globalization. *Unidentical Twins* was not about rationalizing or trying to guess what Richard Wurman did or did not foresee early on but rather what was built on that foundation.

From our perspective, one twin Strategic Information Architecture (SIA) acknowledges Richard’s contribution, (as well as others) the other twin Findability Information Architecture (FIA) has taken a very different route that is reflected in their approach to the world today. That approach can be found embedded in Morville’s Information Architecture 3.0 manifesto. It is an approach that exists largely outside of history and outside of acknowledging external others.

That approach tends to present itself with a certain presumptuous, forceful tonality that some outside of the Findability Information Architecture crowd find offensive. I suppose some might even find it humorous. That's no big news.

The reality is the marketplace is not for the faint of heart. Stuff continues to go on there that is rough and often unfortunate. It has already become apparent that the strategic space race underway in the marketplace is resulting in some challenging competitive dynamics. Due to the sorry state of traditional design journalism its been a little startling to some that NextD took an interest in trying to talk about some of what goes on in a sense-making way. That has not always been an easy role to play.

Considering the complexity involved our purpose here is not to try to redefine Information Architecture or other disciplines but rather talk about whether or not what we are doing has changed, is changing and what we might do to help others understand what that might mean, how we think about all the change that is occurring ourselves, how do we make sense of it? In no particular order I invite you to share your own thoughts and then lets jump off from there.

**Bob Goodman:** Thank you to GK and NextD, as well as to Peter, and Eric, for this effort to expand the ground of conversation around Design and IA challenges. This invitation prompted me to review the history of some of the discussions about the nature of IA and the nature of Experience Design.

It goes back a long way and there are a lot of frustrating (and frustrated) exchanges out there do not seem to lead in any particular direction. **This is one point I think all sides might agree on.**

I feel that many adjacent industries, communities, and disciplines are suffering from *language lock-in*. The terms and frameworks we tend to use are limiting rather than expanding our field of vision. And there is a related *language gap*. We have not yet found the terms and the tone that would increase opportunities for collaboration between and across disciplines to achieve greater knowledge.

Recently, I've been pleased to come across the work of Elizabeth Sanders and she offers some cross-cutting ideas that I believe could point one way forward. She believes that our culture is "shifting from a passive to a participatory culture." She sees our terminology for the central actors in our culture shifting up a ladder as follows: customer, consumer, user, participant, adapter, co-creator.

And she suggests that there's an opportunity and a challenge for the central role of design. That challenge is a shift from the creation of fixed forms to the creation of scaffoldings that help people express their own creativity and enjoy creative experiences.

To me, the themes which she eloquently describes are at the heart of so many debates. There is a potential, nascent shift from a consumption-oriented to a more creative society. Technology today offers this potential and this promise.

How can we design tools that augment, amplify, and support people's natural need for creativity and communication? Designing for co-creators is a different type of challenge than designing for consumers, but that's really the challenge of the future.

**Peter Jones:** It's fascinating how the process of transformation is not revolutionary but quite gradual, it creeps up on us! Compare our current practices to that of 2001 – several emerging disciplines have grown up from just among the work of core practitioners and a thousand or so interdisciplinary designers. Information architecture was more of an activity before 2000, now it's a well-defined field of practice making aggressive inroads into i-schools, (if not yet the d-schools). User experience was not named as a discipline then, it was a *state of interaction* we inferred from user research studies. Interaction design was an activity, not a job title. Transformation design was not in our vocabulary until 2005 at best. And in the mid-1990's, I was known as a human factors engineer because that title and discipline was well understood by clients and colleagues. It garnered respect during a time when many clients had little understanding of the impact of user interface and information products design.

The Unidentical Twins article presents the notion that the larger context of IA has split into two (and possibly more) communities that have taken up different perspectives and practices in the marketplace. I can see where the economic model of our time may have led to what appears to be an ignoring of the historical basis for common ground. This may be a temporary trending of directions that may enrich the new fields we are becoming – it is, after all, up to those of us who have experienced several waves of change to remind ourselves that these dynamics occur in cycles.

Design practices of different schools evolve with our clients, market economics, and the adoption and mutation of different theories of practice and method. I think we over privilege our own influence by thinking that we are actually leading design schools here. What we get paid to do has a lot to do with it, market demand is a powerful force – and “findability” IA (as noted in the article) has made a powerful economic argument for itself in a world where both advertising and interaction have become dominated by Google.

And there are many shades of design and design practice these days. There are more of us, and we don't get rewarded by being the same as others, but rather by differentiation. And some like to differentiate more than others, making harder distinctions so others will give attention to our postings.

While these “fields” may appear to be expanding their turf like a kudzu of professional practice inflation, something else is happening as a cultural undercurrent, as suggested by Bob (and Liz). Professionals are collaborating and learning from each other as much as they are competing. At CHI 2005, a two-day workshop convening on *Meeting the Needs of the Multidisciplinary Professional* brought together officers from nearly a dozen professional societies ranging from STC to IDSA. This symposium helped to push the User Experience Network into its greater uptake that year, which, since then, has grown into a worldwide virtual network of 95 “local ambassadors” in 72 locales around the world. From my experience in being one of these LA's, I know nearly all of us are committed interdisciplinarians; in this role you develop a sensitivity to the many disciplines interested in doing right by the user or executing design work that excites or supports users.

Interdisciplinary collaboration has exploded in the research academies during this same period of time. While faculties remain bounded by their traditions (ask any doctoral student), many researchers now explore problem spaces embracing scientific, technological, cultural, and human dimensions of focus and method. We might advance the notion we share a much larger proportion of perspectives and interests than radical difference.

So even as an industry-facing consultant, I collaborate with Toronto academics on a continual basis – and on *their* projects, not mine – extending their interdisciplinary reach as a UX professional. We share a focus on the *work domain of target users* – healthcare, scientists, educators. These domains have themselves become more interdisciplinary, as have the research approaches in studying them. If doctors and nurses have become more interdisciplinary in education and healthcare, so might designers?

So it appears to me we spring from our own original tribes, but are embracing similar methods (usability, cognitive modeling, ethnography, etc.), perspectives (participatory design, user experience, social values), and artifacts (prototyping, social software, user-generated content). So why don't we all get along?

**Eric Reiss:** Thanks, GK, for opening up this interesting conversation and letting me be part of it. I'd like to mention up front that I speak for myself and not necessarily for my company or any of the organizations with which I am affiliated.

So much for disclaimers.

I think it's important to differentiate between "what" and "how." "What" I am doing today is very different from "what" I was doing 20 years ago – or 30 or 40 for that matter. But the "how" remains unchanged – the techniques of creative problem-solving are generic and unrelated to professional discipline, and thus they are timeless.

People have been organizing stuff for strategic gain and/or practical use since the dawn of time. When computers came along, suddenly it became even more important to keep track of where you put something or what you put it with. Unlike an errant pair of red socks mixed up with the white ones, misplaced electronic files didn't stand out, so you had to be more careful. And from a strategic point of view, we needed to invent new concepts – new sock drawers – that could effectively handle new types of stuff.

Back in the 80s, programs like Q-DOS helped PC users create structural trees to organize directories and then display these on the screen. For many folks, this was their first encounter with what was, in essence, a site map. Apple introduced us to the "desktop" metaphor, which was cognitively more effective because it encouraged people to relate their non-electronic organizational skills to the electronic environment; Q-DOS simply dumped users in a phosphorescent green sea of boxes and arrows. But it's important to remember that both solutions addressed the same generic problems.

In the mid-90s, stand-alone multimedia gave way to websites. Today, we are using the same basic creative processes to tackle new problems. And in 10 years, we'll be working on stuff we can't even guess at today.

So, “what” we’re doing is different even if the “how” remains constant.

If our various communities have a single overriding problem, it’s what Bob called “language lock-in.” To exacerbate things, many industry leaders seem hell-bent and determined to create their own unique vocabularies. Unlike the maritime explorers of yore, today’s on-line pioneers have no seas to name after themselves. So they invent buzzwords. And when several folks invent different words for the same thing, there are turf wars. And when the same word is used in slightly different ways, we get blog wars.

Pretend information architecture is ice-cream. Well, some individuals are screaming that vanilla is the only true flavor and that it is better than chocolate. Doesn’t this seem slightly silly? And what about makers of vanilla who insist on claiming all rights to the term “ice-cream”? Doesn’t this seem slightly unfair?

As Harry S. Truman said, “It is amazing what we can accomplish when you don’t care who gets the credit.” This might also make it easier to communicate with our clients, who are largely uninterested in our internal squabbles and always more interested in how we will solve their problem than what we call it.

Finally, “who” does IA will vary tremendously depending on the type of task, the geographic location, the maturity of the market – and whether the local flavor-of-choice is chocolate or vanilla (or strawberry). As such, whatever changes we are experiencing remain highly personal. And there are no wrong answers.

## 2

**GK VanPatter:** I can see a lot of common ground between the four of us and a few differences. I would be happy to explore the terrain beyond differencing if we can get there. Some of you might know that at NextD we are particularly focused on “how” rather than “what” skills. In our language we talk about “how” (process) skills having a much longer shelf life than “what” (content) skills. The dotcom era is the posterchild era for that story and perhaps ironically it was an era that was very “what” (content knowledge) focused. Most organizations today remain “what” focused. Graduate design schools have only recently woken up to the need to increase “how” skills and many remain very focused on teaching “what” skills. Right now sustainability is the new “what” and its not difficult to see many schools flocking to take up this “what” that has now become the flavor of the year.

We are not so interested in sustainability as we are in the “how” that is underneath this WHAT. Being out there giving many talks I can tell you that is still a difficult story to explain to educators in particular. When we look at Al Gore and his *Inconvenient Truth* we see the need to enhance adaptable cross-disciplinary innovation skills rather than sustainability but most educators chasing the flavor of the year do not yet get that.

On the other hand we have since we launched NextD been talking about the need to recognize that “how” has changed also, at least in the context of design, our primary audience for NextD. It’s not just the “what” that has changed. Raising awareness regarding the nature of the changes around “how” is one of the reasons why we started NextD. We were concerned that graduate design education was simply not getting the nature of the change and its implications.

Design has historically been brief focused. A brief is a defined problem, often shaped by others. One might have great so-called problem solving skills but if your skills are geared for framed challenges, (in other words you can not start unless you have a brief) you might have difficulty engaging in the terrain where challenges and opportunities are unframed. Traditional design skills were not geared towards addressing unframed challenges. To get geared up to participate in the unframed space is a huge shift in HOW for the design community as well as other communities. In our Humantific practice we teach many kinds of companies how to build capabilities to participate in this space so it's a change that extends far beyond the design community. In 2002 we were already in the innovation enabling space before we decided to try to help the design community through the NextD initiative. It's been an adventure!

Regarding Bob's point about language: In our work we make a distinction between Sense-Making (making the strange familiar) and Strange-Making (making the familiar strange). In the marketplace we see a lot of the latter. That's about differencing, trying to make one thing look different from others, often for competitive reasons. The schools are doing it as much as the design and innovation consultancies. Historically design journalism has been about Strange-Making rather than Sense-Making so its often startling to some to realize what we are doing in NextD Journal is the latter. In some NextD Journal conversations one can see the participant trying to do Strange-Making while I am trying to do Sense-Making. These are two very different approaches to communication. To get them synchronized often takes considerable effort.

Depending on what you are trying to make sense of it might be necessary to invent some new explanation constructions particularly if you are trying to explain something that is intertwined with a terminology that has been around for a long time like design or innovation or even research. The meanings of numerous terms are in motion today (not just Information Architecture) which makes the landscape complicated at times.

In an effort to explain that "how" was changing we created an organizing principle that we call Design 1.0, 2.0, 3.0. It happens to be a "how" focused explanation of design and how its in motion. The purpose of the framework is to provide visual language tools that will help others have more meaningful conversations regarding this thing called "design" and ultimately to this thing called "innovation." Around the world, all countries, many governments are trying to create responses to globalization and having updated sense-making tools is absolutely part of the new arsenal of tools.

This work is beyond the realm of software, application, web site, experience, interface creation. This is not about physical or digital findability.

We are talking about how to engage and help at the organizational level where challenges are often fuzzy. Historically designers have not been so interested in organizations so to a large degree this is new terrain. Among the most interesting work going on today is among the hybrid firms exploring what happens when you bring hybrid toolboxes into the organizational transformation space. As various disciplines wake up to the impact of globalization on their own skills, on their disciplines and what it likely means regarding shrinking or growing markets the temperature rises inside the strategic space race. This in part I think answers Peters questions regarding why the various

parties do not get along well. There are forces of competition in the marketplace that are very challenging to overcome.

**Bob Goodman:** This conversation reminds me of a book I've been reading to our two-year-old son. It's a 1974 Sesame Street book called "Grover and the Everything in Whole Wide World Museum." Grover walks around rooms such as "The Things You See in the Sky Room," "The Things That Make So Much Noise You Can't Think Room," and "Things That Are Cute and Furry Room."

By the way, my son does not like noisy room – he says it's too loud in there. At the end of this book, Grover notes that we've seen a lot of things, but not quite *everything in the whole wide world*. So he flings open the doors to the museum, and explains that the rest of the world is out there – in the world!

Modes of thought that used to be oblivious to one another now find themselves nextdoor in the "museum" of the World Wide Web. They can't all include everything. Just as *The ClueTrain Manifesto* made the persuasive case that a marketplace is a conversation, so today we find that a conversation is also a marketplace. As noted by the other panelists here, disciplines now collaborate and compete with one another for positioning in shared and adjacent spaces.

What kind of skills and approaches are needed in this new open market? What should be included and what should be left out? Gartner Consulting coined the term "versatalist," to suggest a kind of IT professional who is both a generalist and multi-role specialist. Similarly, from a design standpoint, Jane Fulton Suri of IDEO uses the term "post-disciplinary" to talk about combining the depth of a discipline with the breadth of sustained collaboration.

In my work as User Experience consultant, I strive for a balance of breadth and depth, integrating business strategy with techniques from interaction design, usability, and information architecture. I agree with Eric that clients care much less about what a discipline or a solution might be called and much more about whether it delivers practical results for their business domain and business situation.

I think this is the moment to briefly double back to GK's Twins piece, while hopefully avoiding the well-trod "What is IA?" debate. I agree that if you are practicing IA either as a profession or a discipline, you can benefit from experience in adjacent areas such as business strategy, design thinking, and wayfinding. I also agree and have argued previously that IA tools and methods in the right hands and in the right place can help identify and drive higher-level strategic goals such as enhancing organizational processes and tools.

To me, that does not mean that the initial narrow focus of IA was off-target or that efforts today to integrate what might today be considered "classic IA" into higher-level design approaches are inauthentic or inappropriate. I started my career at interactive agencies in the mid 90s, and one reason the "Polar Bear" Book by Lou Rosenfeld and Peter Morville was so successful and influential was because it offered clear, *practical*, and sensible solutions at a time of great confusion about the Web as a new medium.

The library science perspective at the core helped differentiate IA from graphic design and included a focus inspired by Library Information Science on classification and information systems. With Web 2.0 today, you see IA as both a stand-alone, insituationalized discipline related to library science and separately as a practice that's often a component of Design engagements.

Shifting to the subject of the IA as a *community*, you can see a model of how you build up a new distributed **professional** community these days outside of academic support. The community infrastructure "assets" include Boxes and Arrows magazine, several active discussion lists, annual conferences such as the IA Summit, the Information Architecture Institute, and a network of active bloggers who consider themselves connected to IA.

You can see aspects of this model emulated in subsequent groups and approaches, including IxDA (the Interaction Design Association), and UxNet (the user experience network.) Like Peter, I serve as a local ambassador to the User Experience Network, in my case here in Boston.

Many leading IAs, including Lou Rosenfeld and Keith Instone, were instrumental in getting UXNet rolling back in 2001. My sense is that many IA advocates helped build bridges along the path of User Experience as a multi-disciplinary approach to design challenges.

**Peter Jones:** I want to pay attention to the distinctions emerging from the implied questions. What are enduring *How* skills, and what skills must be revised or enhanced in the designer's repertoire? GK notes the parade of various "Whats" or focus areas that pass before the design professions: Sustainability, New/interactive media, services design. "Information design" can be seen as a *How* or a *What* from a long-term perspective. So can "transformation design," which aims design thinking toward social innovations and solving major public problems. These transformations are evolving faster than we can reach consensus about our roles in their evolution. I think it's useful to just observe the progression of what's evolving within our own time in practice.

Looking at the evolution of practices which we play into, I see several converging trends that originated from quite different inspirations: Information Architecture, Design 3.0, Innovation management, and organizational transformation. These are not inherently related trends, but have become interconnected now from the conversations WE have about these issues. Our communities of practice have brought these trends together, not businesses or authors in the research literature. We are creating new design ecologies within our own practices turning the focus of design from the product or service both to the user and back into the organization itself. As GK implies, this is not about creating a new design focus, a new *What*. Good design practice has always been about evolving the tools or *How to's*, as an extension of interdisciplinary design thinking.

Design practice should also embrace and reach mastery of other thinking, research, and creative skills that are not being touched upon in d-schools or Boxes and Arrows. We should be learning and skillfully applying complementaries: organizational design, decision-making, strategic scenario making, work domain analysis, and other macro tools – but we risk losing credibility and leadership if we merely add practices to the portfolio. Organizations and people's work practices have their own life cycle and dynamics and are not "designed" by a

small team making sketches on the whiteboard or in prototypes. It changes your design role, perhaps forever, to do these complementary design activities well. But to try but not do them well hazards risk to project and client. As with other related competencies, such as field research or project management, we must develop a sense of the environment, and know when to extend the team with deep competencies, and not just extend ourselves as post-disciplinarians (like ourselves perhaps?) We would not accept a weak designer on our team, so we might not accept most designers as strategic analysts either.

Design practice evolved in the tradition of following the lead of a defined desirable state, whether structured from a brief, a client proposal, or a value proposition emerging from a prior context such as a product line or user need. All design IS redesign, of something – it is difficult to conceive of a design proposition not derived from a related prior need, something currently supported by other means. We should be very good at this by now.

But we are facing the prospect of removing the *imposed* frame, designing in uncertainty, and creating better frames that better serve the need. This opens a huge new set of opportunities for future practice, but requires us to innovate collectively, not individually – uncertainty calls for the participation and design thinking of all stakeholders in the space. Not just collaboration or participatory design for a better product/service, but in the collective re-envisioning of the very need for a given artifact, its structure and form, the needs we believe to exist in the world, or the installed base or prior artifacts.

Finally, it occurs to me that we've artificially bifurcated the field of discourse by positioning How against What. There is also the WHY. In conferences and other venues, we rarely raise normative issues – yes, we have some talks about ethics in research or ethical design, but what's missing for me is a sense of activism toward human betterment. When our day is done, who really cares about the client's website? The "What" school of Transformation Design is to a great extent a turning to *Why*. Bruce Mau's *Massive Change* exhibit was motivated by the WHY of aiming design powerfully toward improving the major functions and structures of civilization. Long before this recent turn, Victor Papanek wrote about design for "sustainability" in the 70's and 80's, totally integrating the what (inexpensive, well-thought out tools for living) and how (innovations in problem solving and solution sensing). Often, the technical issues we argue about in the IA field seem rather isolating and removed from the significant and complex problems we, and our clients, are really facing in this interconnected world. We have a lot more interdisciplinary integration to do before we are able to bridge information architecture, design 3.0 and social meaning to the level of alleviating significant problems in healthcare, education, and environmental destruction.

Anyway, I may have over-extended the mandate of the question, but the core question that emerges for me in these discussions about convergence or the evolution of design ecology is a big *Why*? It isn't so much about getting beyond competing, but having something real to cooperatively design for in the first place.

**Eric Reiss:** I'm glad that Peter brought up the question of "why." For me, this represents the very core of change management and is essential to all innovation. In fact, if an "innovation" doesn't solve a problem, it invariably creates one – and I think that applies to pretty much every field.

More and more information architects are indeed looking at the "why," making sure that on-line media can better meet business goals. With enlightened organizations building

web-based activities into their business plans and online/offline convergence becoming a strategic necessity, we're all learning a lot of new stuff – if for no other reason than to keep up with the MBAs at the table. Websites are finally being regarded as more than just subsidiaries in cyberspace.

Throughout this conversation, the library science aspects of information architecture come up regularly. But please note that although librarians Lou Rosenfeld and Peter Morville wrote the first book on IA, the next four were written by people outside this particular discipline, who widened the scope considerably. And among the 1400-strong membership of the IA Institute, those with library science training – although the largest single group – are in the minority overall.

This past week, I reviewed about 80 submissions for the upcoming EuroIA Summit in Barcelona. One of them came from an instructor at the University of Cracow (Poland) School of Library Science, Dr. Stanislaw Skorka. His paper deals with what librarians can learn from information architects. Clearly, the times they are a changin'.

So, what is the common denominator for the people who call themselves “information architects”? I think it's a question of pattern recognition – our particular way of observing the world around us. Prof. Dorte Madsen of the Copenhagen Business School, who is putting together their BA program in information management, said something similar to me recently, “IA is a way of thinking.” This, of course, makes it difficult to define and even more difficult to teach.

And this also begs a new question, is information architecture a discipline or a lifestyle?

### 3

**GK VanPatter:** I got a kick out of Bob's children's book analogy and the “Everything in the Whole Wide World Museum. I especially liked “The Things You See in the Sky Room,” We might adapt that for the title of this conversation!

It is possible that we might disagree on the notion that all that goes on in Whole Wide World Museum or the Sky Room is viewable from the web but what we agree on and what we do not might not be the most important aspect of this conversation between us.

To build on the Everything in the Whole Wide World Museum analogy, the NextD experiment has taken Elizabeth Pastor and I on a journey that provided views into numerous rooms in that museum. I have to be honest about the fact that not all of what we have seen in the Everything Museum and in the Sky Room has been inspiring or pleasant. Along the way, we have seen that Noisy Room, yes. Frankly there have been times when we did not want to see what we were seeing, times when we had enough and did not want to see more but also times of wonderful learning and collaboration with others. The truth is some of what one might encounter in the Sky Room today can be difficult.

The cast of characters in the Sky Room seems to include visionaries, scholars, practitioners, bridge builders, constrainers, expanders, underminers, politicians, referees, advocates, supporters, attention seekers, sharks, thugs and even a few hit men. Some times one character is masquerading as another. The tonality of what goes on in some of the tribes that are active in the Sky Room can be a little mind bending at times. Frankly it can be quite

depressing to discover what goes on behind the curtains in the Sky Room. Clearly not everyone in that room has the intentions of those in this conversation. We live in New York City so none of this is particularly surprising to us...☺

I have not thought much about whether all design is redesign but will give it some thought. We use the terminology pattern creating and pattern optimizing in our work. There is a lot of focus on so-called user-centered design today but our work typically involves multiple constituencies not just users. I did appreciate Peter's comments regarding looking beyond d-schools and Boxes and Arrows

The issue of separating "what" from "how" is a tricky one. We have no interest in "bifurcating the field of discourse by positioning "how" against "what." Instead we believe it is important to know/learn the difference between the two. Historically, in design "what" and "how" were intermixed so this is not only a mindshift but also a skillshift for some.

In our WorkshopONE we teach the beginning awareness of separating "what" (content knowledge) from "how" (process knowledge) as part of cross-disciplinary skill-building. There are organizational reasons for learning this skill. Those in organizations where the "what" and the "how" are continually intermixed in meetings without any awareness are likely not having a very productive time. Many among us have no awareness that "what" knowledge and "how" knowledge are two different things.

When we separate "what" from "how", the "why" goes with the "what" role so it all depends which role one is in within cocreation. If you are leading a group in a process role you are not engaged in "what" or "why". These "what" or "why" considerations belong to those in content roles some of whom might be designers. Introducing roles in addition to mastery is also not part of traditional design dynamics.

Bruce Mau's Massive Change was indeed about rethinking some of the WHY questions. To a large degree Massive Change was however created by the rather old fashion one man in charge star model so it's a better example of modeling 21<sup>st</sup> century "why" than 21<sup>st</sup> century "how".

It occurs to me that many of the why comments in our conversation here connect back to the earlier remarks about clients. I think all of us can appreciate the notion of corporate clients not caring so much what we are called but unfortunately it is seldom that simple. I do think its clear that many of us seek to find meaning outside of how corporations might view the world including us. That does not make us Marxists but rather responsible and wide awake 21<sup>st</sup> century professionals. There is growing recognition that the corporate view represents only one possible perspective on what is important and why.

In the design communities recent romance with the new business press, one can see the over emphasis on depending on others to define ourselves and our future. First promoted as reporting on design and design advocacy that activity rapidly morphed into redefining design in particular ways that suited specific interests. This became advocacy for a present and future that is not a collaboration of equals but rather one with constantly tweaked subservience to business and those with that educational background. Going down this road was a mistake that design has made in the past but some among us, particularly in the United States continue to advocate this old route as the future. That's another mind bender.

I recognized Eric's comments about MBAs as a different way to say that today designers have to compete along with many others for innovation leadership roles. From our perspective at least two significant shifts contributed to this changed picture: 1. The dot-com era created significant capacity delivery challenges for the design community and other communities. In doing so it opened the floodgates to adapting one discipline to another and to so called lite training. Overnight all kinds of disciplines were calling themselves whatever happened to be desired. Among other things this eradicated the meaning of discipline tags and made organizing teams by discipline tags alone to be quite meaningless. If anyone can be anything discipline tags no longer have much meaning. 2. As design seeks to change itself in the direction of the strategic space design and innovation become more closely linked. In some realms of practice they are one in the same.

In high contrast to those two developments, the traditional model of design education that remains largely still in place today is to assume that design school educated designers are going to lead design. In the real world marketplace that has not been the case in many contexts for at least 10 years. Today many disciplines seek to step up and lead in the context of cross-disciplinary innovation. Some are better equipped to do that then others due largely to what is and what is not going on in graduate education today. We have been harping on this story for years in an effort to get graduate design education institutions to do more than talk the talk when it comes to teaching cross-disciplinary innovation.

Regarding the comments about innovations and solutions: In our corner of the universe it is recognized that there are no solutions that end all future challenges. In WorkshopONE we teach that all solutions create the next set of challenges. Part of the human condition is facing challenges constantly. We don't stop trying to solve problems just because new ones are created. Hey even in Star Trek they have solved many social problems but there is certainly no shortage of new problems in that mix.

The challenge for organizations today is not how to reach the be all and end all of application, product or service solutions but rather how to organize and skill-up to enable adaptability; the need to be able to address unframed, fuzzy situations continuously. We say happiness is a complex problem...:-)

As per my museum comments above, we interact with and look across many, many communities of practice through NextD. Each community has its own focus, tone, behaviors and various other attributes. It is no surprise that many communities are working on their version of their future often based on the challenges that are being faced in the marketplace. Some communities consider themselves to be highly savvy electronically, strategically, academically, etc.

With this in mind I am curious to hear your thoughts on the role of blogs and lists on the various communities of practice that you engage with. How would you describe the discourse that you see going on there; tactical, strategic? What role does discussion list and blogosphere discourse play in your day to day practice? Do you consider yourself to be in the Sky Room, the noisy room or somewhere else when you look at that discourse? On a scale of 1 to 10 (10 being extremely important) how important is that discourse to how you think about the present and future of your practice?

**Eric Reiss:** Before moving on to blogs, I'd like to respond to GK's remark "Today many disciplines seek to step up and lead in the context of cross-disciplinary innovation. Some

are better equipped to do that than others due largely to what is and what is not going on in graduate education today.”

This is a trend (bottom-up) / fad (top-down) type of thing. If a “discipline” comes to lead, it’s because of a bottom-up, populist agreement that this particular discipline is best suited to take charge. I don’t think you can teach this in grad school.

Nor can any single community simply declare themselves “leaders.” Since GK has already brought up Marxism, I’ll serve up the following case in point: Kerensky and the Mencheviks declared themselves the “undisputed leaders” of post-Czarist Russia in the summer of 1917. Kerensky as prime minister and “persuader-in-chief” lasted less than four months before being swept from office by Lenin and his popular Bolcheviks in the October Revolution.

Perhaps I’m reading this wrong, but to me, “cross-disciplinary innovation” is simply about people with different backgrounds who work together to tackle a common problem. And if these folks can remain open-minded and empathetic, and contribute rather than compete, then where’s the problem? This strikes me as a mindset thing. Then again, I don’t view innovation as a particularly mysterious or difficult undertaking. Maybe I need to take a course :)

Anyway, until a leadership “discipline” evolves over time, the leaders of any community or movement will invariably be individuals. And as we all know, some people are rotten leaders, even when leadership is thrust upon them. Yes, you can teach leadership (army-officer training isn’t too shoddy), but only to individuals, not to “disciplines.” (Hey - let’s send everybody to OCS).

And on to blogs...

Scale of 1-10, I’ll give them a strong 6.

GK asked about the role of blogs and lists. What roles do they play? Well, they sometimes help me answer questions. They help me keep my ear to the ground. They help me learn from the experiences of others. They help me cross cultural and geographical borders. “Are they strategic or tactical?” Clearly, they can be either.

However...

For me, the problem with blogs (but not usually lists) is that the blog owner invariably “preaches to the choir.” How many times have we seen comments to posts that start, “Wow, what an AWESOME post.” Sometimes, it’s as though someone simply wanted to start a fan club for themselves.

It strikes me that blogs are also extremely tribal – if you ain’t one of us, you’re against us. Diverging opinions invariably incur the wrath of the loyalists. Personally, I find tribal mentality, which is ruled by emotion rather than reason, extremely destructive. Nor do I have much patience with mutual-admiration societies. I love Dave Weinberger’s adaptation of Andy Warhol’s remark, “In the future, everyone will be famous to 15 people.”

The downside of all this is that the blogger's thoughts – even the really good ideas – often stay within the confines of an established community unless some eager-beaver journalist spots something worth mentioning in another forum.

It's a shame that more bloggers haven't read Rebecca Blood's *The Weblog Handbook* (Perseus, 2002). Rebecca understand the necessity of building value and dialog into a blog, encouraging alternate points of view, and promoting evaluation. Sadly, the really good blogs remain few and far between.

Back in 1996, everyone had to have a "home page." Most of these are now lost in the electronic mists of cyberspace. Good riddance. Today, we have blogs. I'm looking forward to the day when the chaff disappears. To paraphrase Tom Lehrer "If people have nothing to say, the very least they can do is shut up."

**Bob Goodman:** To briefly return to that Sesame Street book, one challenge Grover faces in the "Things You See In The Sky Room," is that he tends to bump into things, like walls, when his eyes are cast upward. The room after that one is "The Things You See On The Ground."

While some of this conversation has been looking upward to the sky, or perhaps down from the sky, I think it's important not to loose sight of what's going on at the ground-level. I consider user experience consulting to be a hybrid approach to business, technology, and design, but more narrow than innovation consulting or customer experience design.

My own consulting work is often downstream from these kinds of business transformation challenges, though increasingly, I find I need to help clients upstream in terms of thinking about how they lead and manage a user experience design process towards what's been called "design from the outside in."

I'm an advocate of putting flow, design, prototyping, and user feedback first and the construction and full development process second. That can be a significant shift from the more linear, hierarchal, and siloed ways of going about things, and it certainly involves diving right into the area of unframed challenges. So to GK's question, I see my own work located between the Sky Room and the Ground Room, and I try to help others navigate the path between the two.

In terms of issues in Design Education, I think that generally the market leads and academic programs follow. You also see offerings from agencies and individuals helping to fill that wide gap between the classroom and the boardroom. That could include everything from Lynda.Com's Web-based tutorials to Victor Lombardi's new Smart Experience business in NYC to Cooper U to NextD.

As to why some of these changes are happening, it's a big question, and I could only hope to take a small bite of it here. I think Alvin Toffler's *Future Shock*, and Marshall McLuhan's *Understanding Media*, are both good places to start. We have a massively accelerated global technoculture and that is stacked on top of an older and slower-paced assembly-line system.

That creates new challenges for the pace and approach of how you adapt and learn, as well as how people, companies, and cultures use tools and channels to successfully interact with one another. These changes come in part from a massive technology transfer from the military to the street that dates back to World War II and the birth of the transistor. The 1954 portable, pocketable transistor radio and Elvis Presley's stepping onto the global stage through that medium is an early song of today's digital culture. This is no doubt too broad a subject to expand on here so I'll leave it at that.

On the question of blogs, I think you have to look at the medium to appreciate the message, and it's an incredible one. With blogs, RSS feeds, individual and collective tagging systems, and Google, you've taken the cumbersome, one-way page-publishing system of the 1990s Web and transformed it into a fast, easy, dynamic publishing system that transforms any person or company into their own global news and conversation channel.

Is there a lot of blog content that's disposable? Of course. But using myself as just a small "use case," usually if I perform on a Google search on an even slightly obscure design or technology question, I find several relevant blog posts within seconds. Those posts are either informative in their own right, or lead me quickly to good original source material.

This is a different scenario than regularly reading blogs as you might a daily newspaper. I started my career in daily papers as a print journalist, so I understand the appeal. In a sense, blogs reduce the time and technology cost of publication and syndication, and that means that they add a good deal to the inventory of information and knowledge out there.

But you have to find your own approach towards the issues of searching, sorting, and sifting to wrangle meaning from this information abundance, and you have to be wary of the potential for this abundance to soak up too much of your attention and too much of your time.

Regarding GK's question about the importance of blogs and lists from communities of practice to my own work, I'd also give them a 6. It's important to understand where one's own work fits into, or is different from, wider community trends, as well as have a chance to converse and connect with peers online (as well as offline.)

However, the single most important factor for me in thinking about where my own work is headed is direct interaction and experience with client challenges and thinking about the patterns I see there across clients, across business domains, across users. Also very important to me is reading about ideas from other areas of thought outside my direct communities, such as neuroscience and behavioral economics.

**Eric Reiss:** Bob is certainly singing my song when he says that our work is a hybrid. This talk of the Sky Room and Ground Room reminds me of an old story: A fellow is being tortured. One foot is stuck in a freezer; the other in a red-hot oven. But, hey, on average, he's in good shape.

**Peter Jones:** And on average, our professions are doing fairly well, or we would not be having this conversation. But perhaps some of us (meaning me for one) are experiencing a

type of extreme divergence of expression “out there,” where too many issues and ideas are being expressed individually to make sense in terms of true trend or leadership in a profession or community of practice. I’ll cite a couple of examples, then work back to the blogging / media question.

I attended Don Norman’s talk in Toronto today, for his presentation on the Design of Future Things. One of his points was the need for developing a science of natural interaction, a way to lead design by understanding natural human interactions. My question was along the lines of “there’s already quite a bit of good science out there, but if it never gets into the education of designers, then how do we influence the design of everyday future things based on good science, and not designerly stardom?” To me that’s a crux of the issue – if the *markets* are leading, as Bob suggested, then of course not only education but design is following. Which is *not* a good thing, since the markets are following economic imperatives, and we are not leading if following a crowd of buyers. There are outstanding, extraordinary innovations coming from all academic disciplines these days. They just take time and imagination to reach commercial potential. Some of the most enlivening collaborations I’m engaged in are not contractual, but blue sky academic, such as a health informatics project led by a professor of pharmacy.

Science takes a longer time to work into good design practice than business. Business is immediate, new thinking takes some time to work into design. In Don Norman’s talk, a human factors grad student raised a question about the trends of design, and the differences between industrial and consumer design. While this may not be the best framing, the point is clear – people on the fringes of the design community cannot tell what is happening or where we are going. I’m not sure I can tell either, from the inside. Another data point - I get the Info Design email newsletter, which of course is also a blog, and maybe even a mailing list. Anyway, the recent issue included 24 blurbs ranging from Accessibility to Business to Usability. A sense I cannot help but make is that design professions are very fragmented, and we are not helping. We’re (all) creating and pushing a high volume of “me too” trade-oriented material in the new virtual spaces. We are all responsible for generating so much cognitive clutter in the field, and with group blogs and lists we have become our own editors, filtering by often arbitrary categories. If everyone’s experience “in the market” is equally valuable, we are not passing along knowledge, but an overwhelming exchange of personal reflection.

For an experienced practitioner, a lot of what’s being said is not new at all. But rather than reading the original, well-researched reflections of an informed author and researcher, I have to read bits and pieces of bloggage. A lot of this is well-written, and I have to admit even the redundancy helps me retrieve ideas and techniques I may have forgotten about. But the infowhelm is not an empowering experience, and is not necessarily forwarding the design profession. I don’t have an answer, but I can say as a writer I’m reluctant to publish in these online magazines or meta-blogs, I’d much rather be in the world of print. But of course I also blog, and am now famous to - maybe - 15 people.

With that said, I’d score the importance of blogs in my practice at about 5. My work has become specialized and is split between contracted design research and collaborative innovation projects that I have sought out. So blogging will probably never land me a project, or even help qualify me for one. It’s a personal expression of ideas. I do it to keep track of what themes and emerging ideas are important enough to me to share sort of publicly. Email lists are socially more helpful, because they are voluntary and participatory – you know who

the audience is, and you can cut to the chase, and respond to real issues. These hoary old online artifacts still score a 7.

We have not mentioned wikis, yet, but I score these higher – 8 at least. Wikis are intentional and dialogic, and have the potential to evolve real communities of discourse. I've been setting these up for clients of our dialogic design service, and we have a master wiki for dialogue called the Blogora (<http://blogora.net>).

So I see our conversation converging toward two emerging theses: Educating and evolving design practitioners, and the adoption and evolution of media for communication and education. My view of design education is that everyone should follow their unique sets of aptitudes and aspirations and find a *community* within a field, industry or line of business of their on-the-job evolution. Designers are made through practice in the “arena,” not born from d schools.

I came from a human factors / cognitive psychology background, from the “Dayton school” of cognitive engineering which most designer peers aren't even aware exists. In Dayton, human engineering (as it was called then) started redesigning things to aid pilot performance in the new jet fighters of World War II. The HFES chapter in Dayton is 50 years old. Then I pursued an interdisciplinary doctorate in Design and Innovation Management through Cincinnati's Union Institute.

A self-described designer is already good at their craft. So I think a designer's *self-education* goal should be to become the best interdisciplinarian they can be, which in practice means following multiple disciplines - at once - until you create your own blend that works for your problems of interest. And maybe this approach is partly why we are fragmented.

Designing is inherently interdisciplinary, and is not an academic discipline of its own. It's a way of being, like art or engineering, a hands-on process of creative sense-making with your tools in a given environment or system boundary. It can be considered a way of problem solving, a perspective, like engineering is a perspective as well as a discipline.

As we expand the boundaries of design education and professional development, we are in some very real ways breaking up the message and our meaning. If the medium is the message, our (over use of multiple media shows the huge variety of messages we are trying to sustain. We are designers, and perhaps have to differentiate. But we continue to fragment the bejesus of our professional communities by creating so many subdisciplines, by following a market-driven context of differentiation toward highly refined niches. When the User Experience Network was launched in 2005, representatives of about a dozen professional societies came together to try to create a new umbrella to address this fragmentation. I think since then there are probably another 5-6 splinter groups, and the UXNet is not as widely recognized as we had hoped for. I cannot help but consider that all of us *individually* are more powerful than all of us *together*.

Therefore, the idea of whether a designer or non-designer can lead innovation is not the issue. It's also whether the *leader* can become a *designer* in their orientation to the process and materials. People become “designers” by reflective individuation through their own education and work experience, and anyone can lead innovation given the opportunity and preparation in their own organization. That's a point I take from Case's Richard Boland, who has illustrated how managing in the dynamic, ill-defined, loosely-framed world of organizations

may be seen as a design process (in the collection of essays *Managing as Designing*.) Which should bring us back around to GK, who's interviewed Dick here previously.

## 4

**GK VanPatter:** There are a lot of thoughtful views on the table here now to take in. Perhaps I can connect a few dots across our perspectives. I can see Bob is really enjoying running with that Sesame Street analogy! I think it is safe to assume that everyone in this conversation is well versed in the on the ground challenges as we are all engaged in various forms of practice. Looking out into the dialogue most often seen in lists and blogs I think the challenge for many is getting beyond the day-to-day tactical thinking, whether you call that engaging in the Sky Room or something else. As Peter points out, it is often sense-making in the context of high complexity that many individuals and organizations are grappling with today.

In NextD Journal we have tried to create a different kind of dialogue bridging between practice and academia. By different we mean more focused on sense-making and less on differencing (strange-making). Being in the sense-making room takes some getting used to. Not so surprisingly we have had some academics insisting upon bringing in academic precisions and values and some from practice insisting upon bringing in values and precisions from practice. Some from practice have insisted that there was no room for theory today, its all about action etc. Often these projections reflect the operational settings, the value systems and the problem solving preferences of individuals.

Perhaps I should explain that when we use the term marketplace we mean everywhere outside of academia that in itself has become part of the marketplace so the reality is there are no perfect terms. Schools have become businesses and businesses have become schools. Much of what goes on in the world is part of some marketplace some how, some where. I do agree with Peter that this need not mean that business values, interests and precisions should always drive the train. As long as we have designers focused only around the brief business (predefined problems) however it will be difficult to get out from underneath this old industrial era model, where industry rules and design serves. In spite of all of the hype around design thinking this is essentially the issue that we have with the current new business press view of the future of design. In that future those who went to business school define what the challenges are and what the values are and designers carry out those wishes. Needless to say, many designers have a much different view of the future for design. To get beyond the brief business takes new skills not traditionally part of design. We have been calling that view Design 3.0. Since design is such a widely used term it is difficult to talk about and explain the need for change without such sense-making frameworks.

Much of what we see going on in the realm of lists and blogs tends to be very tactically focused, very tool, technology, application focused and very argumentative. In the design community there is not much strategic thinking going on within view of lists or blogs. It is no secret that some communities are more technology savvy then others. It is also true that some are more innovation dynamics/process savvy then others.

In this regard I agree with Bob's remarks that we are at a point in history where we have significant struggles between technology and organizational infrastructures but I would

add another dimension to that equation and that is human behavior. From our perspective this is among the most interesting and often over looked stories in the realm of human-centered innovation and the so-called “technoculture” today. Some might be surprised if we looked objectively under the hood of that “technoculture” as Marshall McLuhan would.

Bob said: *“We have a massively accelerated global technoculture and that is stacked on top of an older and slower-paced assembly-line system.”*

In reading that statement some might assume that our behaviors are most closely connected to the leading edge global technoculture but I would suggest that the opposite is closer to the realities on the ground at this point in our (earth's) history. In Design 2.0 as discussed by Don Norman and others operating in that realm, human-centered means outbound user behaviors are the primary focus. In Design 3.0 our own inbound behaviors are part of the innovation equation as well. This has traditionally not been part of the design equation. I would add to Bob's picture the notion that the behavioral aspects of innovation that are encountered in business organizations and also in the blogosphere are most connected to the assembly-line era mentality rather than the era of cutting edge technology. This is among the truths hidden in plain site about the blogosphere and list technology today.

Its typical in some communities who consider themselves to be very technology savvy to go on and on about the fine points of Google search engine and RSS feed knowledge related to blogs and lists without reflecting any interest in or knowledge of the underlying behavioral aspects of these technologies. Presently this kind of infatuation and thinking can be found front and center in the FIA community. There one can find numerous experts not only on how Google search engine mechanics rule the world but how to game the now well-known system. For these folks what matters is what matters in the context of the search engine universe, not what matters in terms of broader community considerations. Some of the worst list and blog behavior can be seen coming from those bloggers who claim mastery of the system. In high contrast to our friend Grover working over on Sesame Street this tends to look behaviorally more like Freddy working the Nightmare on Elm Street. In such communities technology awareness is king and human behavior is considered a throw away. Some communities of practice that consider themselves to be movers and shakers are well on their way to embedding such behaviors and tonalities into their community cultures.

Regardless of whatever technologies might be in the mix it is ancient thinking to assume that behaviors are not an important part of any innovation equation in teams, in organizations and in the broader community. Cross-disciplinary innovation 101 includes the very real notion that behavior matters. Without such awareness, without such skill what you see in action most often is unenlightened industrial era behavior that really has nothing to do with the technologies being used. To some degree the technologies are masking and enabling these behaviors.

I am quite sure that Marshall McLuhan would be more interested in the behavioral impact of these technology tools/games than on the mechanics of search and feeds.

It is no secret that presently most blogs and lists have built-in behavioral dynamics not too dissimilar from first person shooter games. For some, part of the game is to draw the

dialogue into the game system where it can undergo the first shooter dynamics. Non-participation in the game is particularly not appreciated by the gamers. Lots of energy is being expended out there in this regard with virtually no acknowledgement and probably often no knowledge regarding such dynamics. Clearly some see the blog/list gaming mastery as among the highest form of knowledge today while some of us see that focus as part of the dumbing down of community dialogue. Many thought leaders that we interact with would agree with Peter, that in spite of all of the hoopla around blogs it is in print form and in face to face dialogue form that you are more likely to find deeply useful knowledge. To assume that blogs and lists are just on line versions of off-line dialogues would be naive.

Some of this likely connects back to what we talked about at the beginning of this conversation regarding the transformational directions of various communities. Suffice it to say that those of us who headed in the direction of SIA early on are very interested in the behavioral aspects of dialogue and innovation today. Rather than being out in the community acting out as worst offenders we think it is more constructive to strive towards helping others understand the impact of these technologies, and these behaviors on organizational innovation. Often what is being passed off as leading discourse in the blogosphere typically reflects a high awareness of technology and little awareness of human dynamics.

From our perspective the more encouraging news in the big picture sense is that the community discourse picture is changing but not exactly at lightning pace. We do see the wave of design related graduate and post-graduate programs coming on stream as an emerging force that is already changing the level of community discourse. In five years the level and focus of design/innovation related discourse will be significantly changed (as will practice) and this to us is an interesting story in motion.

Present blogs provide a form of entertainment but lets not get that confused with the degree of heavy lifting that needs to be done around the transformation of various communities including design. For those in the business of creating original content, blogs can be awareness accelerators as much of what passes for blog posts is recast material from elsewhere. That is the good news and the bad news I guess. I do not know what the specific numbers are but I would guess that 80% of blog content is recycled material. Of course it is a lot easier to make a two-sentence remark about someone else's deep original content then it is to create deep content oneself. There is a lot of that going on out there.

There are a couple of other, even bigger things embedded in this story that we do not likely have the band width to explore in detail in this conversation but I will mention this in passing as it relates to much of what we have talked about here in terms of process (how) mastery, human behaviors and enabling technologies. It is interconnected to the first person shooter dynamic. We are interested in what that dynamic translates into from an innovation perspective. Again I do not know specific numbers but I would guess that 80% of blog and list content is judgment oriented. Whether users are aware of it or not, blogs and lists are great vehicles for activities that have strong connections to judgment. Presently that seems to include critical reviews of celebrities, movies, books, companies, products, services, tools, ideas, regular people, etc.

Blog dynamics are most suited to those among us who have problem solving style preference for judgment rather than ideation. Blogs are heaven made environments for those with such preferences and it is no secret that some communities of practice are heavily weighted with such profile preferences. This is an entire subject unto itself and one that we remain very interested in.

The blog and list picture starts to get a lot more meaningful when you can connect the dots across preferences, technologies and organizational cultures. How many organizational leaders would seek to import blog dynamics into their organizational cultures? I am sure we all know what judgment oriented cultures feel like. The reality is this integration is already underway, whether organizations are conscious of it or not.

Today, we have blogs. I'm looking forward to the day when cross-disciplinary innovation behavior knowledge is more widely spread and we have more sophisticated innovation enabling technology tools. That will be real transformation.

What is quite fascinating, disturbing, or funny, depending on how we think about it is the popularity of judgment enabling technologies, in tandem with the rise of television programming where judgment is king (The Apprentice, Hells Kitchen, Top Chef, etc.) occurring simultaneously with the late arriving contradictory awareness in the business schools, in the new business press and in corporate settings that the primary focus of what they have been teaching in business schools for decades (judgment/decision-making/convergence) is only one part of the innovation equation. It's a bit of a mind bender paradox of a picture but there it is.

Regarding your comments about leadership Eric: I can tell you that what we see from the vantage point of the community focused NextD would seem to contradict your perspective. Here we try to look at such questions from outside of ourselves. At NextD we receive lots of email from mid career people who find themselves in practice situations where they are being given the opportunity and responsibility to lead cross-disciplinary teams tasked with tackling highly complex problems. Often they write seeking some advice because they find that their present skill-set is not geared for such challenges. The opportunities of the marketplace are outpacing the skills learned in graduate school. They recognize that the window of opportunity will close for them unless they can step up and demonstrate that they can lead in such contexts. If they do not step up, others from other disciplines will step in.

As per my previous remarks, this stepping up involves a level of process mastery that has not historically been taught in business schools, technology or design schools. It is a very common fallacy to assume that knowing how to work alone, and with members of your own tribe is the same as knowing how to lead in the context of cross-disciplinary teams. As much as many educators comfortable in the old ways of being and doing would like to think otherwise, it is not the same. Cross-disciplinary work represents a different universe and we are still in the early days of understanding and operating in that realm.

We see lots of folks in business organizations trying to use skills from individual work and single tribe work in the very changed context of cross-disciplinary work. This is an entire subject unto itself. The point is other disciplines are teaching and learning these skills and it is naïve for the design community to assume we can compete with others in

a continuously changing world without this kind of knowledge. Since Eric mentioned “taking a course” I would absolutely invite the three of you to the summer session of WorkshopONE. At NextD we wanted to be doing more than just talking about change so each summer since 2002 we have offered a NextD version of WorkshopONE to our own community. It is completely counter intuitive that we would provide this transparency into how we work with our Humantific clients but we do so as a contribution to the community.

We are reaching 12000 words in our conversation here. Perhaps we might start landing this plane now by sharing one more round between us. Perhaps we could each talk a little about what the most significant challenge facing us in practice is today and how we grapple with that challenge?

**Eric Reiss:** The problems facing our practice? In general, I'd say it's folks who push their personal agendas rather than pursuing the greater good. And how do I “grapple with that challenge?” Well, I listen, learn...and give them lots of rope...

**Peter Jones:** Until you asked that question, I would not have considered what you are calling Design 3.0 to be that challenge, but it converges with my questions. I see the most significant challenge facing us in practice of being relevant in a rapidly changing world, and preparing for that relevance in ways that transcend market demands. Because we are normally supported (paid) by the market, we often only look ahead as far as our support takes us – many of the issues we call “tactical” are those market-driven skills and needs that are all fine and good, but at some point are insufficient. And unfortunately, most of what we call strategic design comes down to aligning ourselves with competitive business strategy in hopes of relevance and support. The challenge is transcending our design skills and identities and the frames of our application domains so that as designers we can powerfully take on leadership in a world of multiple crises - democratic, social, environmental, health, and commercial/financial. Do we want politicians, engineers, and commerce figuring out the responses to these complex issues? Aren't these design problems? Are we prepared to create tools and artifacts that slice through to the roots of these extremely wicked, unframed design problems? Can we become more entrepreneurial and creatively responsive to the situations unfolding around us that are poorly managed by traditional “leaders?”

We need to act quickly, because business schools such as Toronto's Rotman School (Designworks), and new programs such as Smart Experience are coming to lead in this new space between and among disciplines.

And of course, these are cross-disciplinary problems that require multi-disciplinary responses, requiring an intervention process that becomes a designed solution as much as the artifacts we develop. Design 3.0 comes into play here as we need to develop a personal effectiveness beyond design skills, responsive to the design challenge and at the same time morally responsible to all stakeholders, not just clients or users. As we start to reframe the “centeredness” of design in 3.0, we may find challenges to the very concept of user or human-centered. Other fields engage in active dialogue about their focus – systems engineers speak of “systems of systems,” scientists speak of ecological models and “3<sup>rd</sup> phase science” (where the intervention becomes integrated with observation), cognitive scientists speak of the distributed cognitive system (or sociotechnical activity system). What do we have as an equivalent? What are the units of analysis typically found in the “findability” school as GK is

referring to IA here? What are the units of analysis of the SIA perspective? How do they play together?

In the more expansive frame I have pursued in my research agenda, I look at information ecologies (systems and networks) and information practices (activities that produce and transform information as work practice, and select from multiple ecologies). When expanding to the realm of complex systems, our design vocabularies start to look insufficient at times. My other (non-UX) practice is what we call dialogic design, the application of systems theory in the form of structured dialogue for stakeholder-driven problem-solving and design programs. I admit to having significant identity crisis moving between these practices, and hope that the movement toward a Design 3.0 type of practice starts to resolve these artificial intellectual barriers.

The other news I'd like to share is that here, in the center of McLuhan's legacy here in Toronto, I'm happy to report many signs of "Big D" design moving toward D3.0. Where I'm seeing this happen is in interdisciplinary skill and cultural change, a mode of working in trans-disciplinary projects with fuzzy boundaries, toward leadership beyond the design brief frame. And of course McLuhan himself was an original proponent of cutting horizontally across disciplines and media with his perspective on meaning and embodied message. There is no McLuhanesque design school I know of, but there is an active circle of McLuhan media scholars (but few designers) working on media ecology, and design ecologies as well.

Perhaps it's in the lake water here, but the last few years have seen a lot of collaborative learning in Toronto. While most design firms and interactive agencies follow the lead of their clients' needs for skill development, the Toronto UX community produces continual *informal* design and tech-focused camps, slams, and "unconferences." Yes, a lot of the focus is tech, but an emerging informal educational genre is being created in events like TorCamp, Interaction Camp, Design Slams, and the tech shown-n-tells. These are *emergent* programs, self-organizing learning communities working within networks, obviating the need or even the conversation for credentials. This can also be seen as a D3 trend, and one which has the potential for impacting design and formal education from the bottom-up push of organic change based on individual interdisciplinarianism.

McLuhan envisioned a lot of what we're dealing with, in patterns and principle if not in terms of format and artifact. His later work proposed the concept of the Tetrad, which applies to several aspects of our discussion. When we speak of something like Design 3.0, we envision the replacement of one regime with another, in a process that may result in obsolescence of the previous regime. The Tetrad is a "resonating interval" wherein an artifact – or medium or process – is first enhanced, then replacing the prior version. A process of *reversal* occurs, where the imposition of the innovation is rejected by its ecology of usage, as new problems emerge from the new. Retrieval happens when the innovation has taken hold and significant values thought lost in the transition are reintroduced into the new medium or process.

We will see more conflicts between values, their expression, and rates of change in the enhancement and obsolescing processes in our fields. For example, in this discussion I have attempted to retrieve some values from the "longer-duration" schools, such as Papanek's design for the real world, and I would add Chris Jones, Harold Nelson, and Christopher Alexander's perspectives of design as important to consider in the "why" and "how" dimensions of D3. There are many other writers and thinkers far outside of the design world that will educate our sense-making capacity. For example Wright State's Psychology

department chair recommended John Ralston Saul's "Voltaire's Bastards" as an antidote to the infection of MBA-oriented thinking. We personally benefit by reading philosophers such as Saul, and since the wonderful postmodern pragmatist Richard Rorty just died, I'd recommend his *Contingency, Irony, and Solidarity* as another wake-up call. Other wake-ups from mentors range from Jacques Ellul in the 50's, McLuhan and the Club of Rome in the 60's, Ivan Illich in the 70's, Bill Joy at the millennium. It's always helpful to ask your mentors what they read.

We are experiencing a series of simultaneous dynamics, which allows us to foresee a phase change toward something like a D3, so we might as well lead rather than follow. We see a similar set of drivers for change that should be apparent to all design "schools of thought." The demand on design services by the market is higher than ever, the rush to supply such with multiple competing firms and ever-differentiating processes, the scramble by design schools, and now "i schools," to stay ahead (or at least relevant). On top of this we have larger, very human, sea changes going on, which many of us ignore because they demand a personal investment. One, the increasing awareness of extraordinary human need in the environment, the realm of social innovation, which I call design for human betterment. And two, the demand for enhanced personal awareness, a change of consciousness to transcend personal skill and professional role. This shows up in many ways, as a sense of purposeful work, moving toward an orientation of *service* (in the spiritual sense), and a phase change I've seen frequently expressed along the lines of "whole hemisphere integration" of brain and mental capacities. The authors I just mentioned do a good job of fusing these two dimensions. These qualities are not in service of competitive strategy or skill development, which have their place, but of creating a more humanly responsive profession. I believe this is possible.

**Bob Goodman:** One broad observation I'd like to make is that economic imperatives often create a situation where you have a solution, embedded in a product, in search of a problem. If the prospective business customer for that product never defined or understood their problem or challenge in the first place, they may buy a product/solution without spotting a potential mismatch.

Yet that customer will bear the hidden cost of such a mismatch over time. What do they do about this mismatch, if and when it becomes visible? Often, they buy yet another niche product solution that happens to fit with the initial mismatched product to try and close some of the gap.

At that point, you start to see a patchwork of interconnected and interdependent product and point solutions, none of which really seem to improve the situation. In medicine, that's called *iatrogenesis*: the remedy creates a new and often greater illness. And you see the phenomena that environmentalist Paul Hawken writes about where you've optimized one component or a few components in a piecemeal way and you've pessimized the whole undertaking.

Over time, you find that what you have on your hands is not a solution at all – what you have is a mess. At some point, those customers should cut some of their losses and start fresh. But that becomes quite challenging because of the thicket legacy "solutions," sunk costs, and all the new problems that those solutions created in the process.

Design thinking can help provide a better understanding of these types of negative system dynamics, and help prioritize sound business values such as foresight, agility, adaptivity, and interoperability. As discussed by GK, visualization is also an essential capability here, as it's

one of the best ways to quickly create a platform for people to share understanding and achieve insights.

This loops back to GK's contrasting of different information architecture approaches. Beyond this inter-community or intra-community conflict, I believe we are actually looking at different modes of thought that can and do work together towards a more holistic problem-solving toolkit.

Text-driven categorization and classification systems, for example, provide a great way for people to find information *once they have already entered* into an environment that is well designed, that offers a strong sense of engagement and order. I sometimes talk about IA in terms of flow, because that's how I really think about it, and to me that includes many different aspects of structural design ranging from cartography to classification to wayfinding to navigation systems.

To touch on GK's question of the biggest design challenges we face: Ian Curry of Frog Design has a fascinating essay called "the known unknowns" where he reflects on the expanding domain of design and notes: "*Design, it seems, is good for producing innovation not only in bathroom products and websites, but also (with varying degrees of success) in business' more abstract realms, like leadership and strategy.*"

When it's put that starkly, you have to realize what a tall order that is for Design. I believe that design leaders will have to be able to calmly and logically show how and why design thinking works. They will also have to demonstrate that a decision maker who would not dream of classifying herself or himself as a designer can nevertheless play an essential part in a collaborative design process. I would look at that as a big challenge to anyone who hopes to provide direct or indirect leadership in a design-related practice. As to the grappling part, time will tell.

## 5

**GK VanPatter:** To complete the circle regarding most significant challenges facing us in practice today I would say that there are numerous challenges that design itself faces in the marketplace. Some are challenges that all disciplines face in one way or another due to the forces of globalization. We do our best to pitch in and help out through NextD. Doing so means not being afraid to expand the meaning of design beyond its historical form. Anyone doing this kind of work inevitably encounters many competing forces in the marketplace, often coming from communities that are themselves in change and or expansive motion. There are also many competitive forces within the community itself. Working in this terrain can be difficult, thankless, expensive work so anyone doing so has to strongly believe it is important for the greater good.

Some of the competitiveness can become disheartening at times so part of the challenge within the challenge for anyone working in this community terrain is to remain positive and proactive with continuous forward motion through the various storms. A lot of bullshit goes on but the end of the day we can only be responsible for the karma that we create.

Other challenges are more specific to our practice. Among the challenges for us in practice is finding skilled people since no graduate school teaches exactly what we do, interconnected with that is the challenge of scaling our practice globally. Finding ways to keep the work fun

and worthwhile is also an important challenge. After a while in this business the challenge is not so much about finding projects but rather finding the work that is meaningful. Certainly we are not alone in any of those challenges. What we do attempt to address these challenges is to meet and communicate with others inside and outside of the design community on a continuous basis. We have a strong support group and from that get lots of ideas and positive energy. Although we have in some ways left the traditional design community, we remain very much attached to design and likely always will.

In reflecting on some of the comments made above I would like to pose one last question. I am curious to know whether you think any of what you have written or more precisely, what you have not written here has been influenced by the earlier discussed notion that we might post this conversation in its entirety on Boxes & Arrows, one of your blogs, or elsewhere. Do you think this possibility influenced what you have or have not expressed here?

For me the answer is No it has not.

**Bob Goodman:** No. In an earlier life, I was a journalist writing everyday for daily newspapers. It's that "old media" experience that still shapes my writing, rather than the new media environment, for better or worse.

**Peter Jones:** For me, this has already been a public conversation. Four of us are expounding in social space, and the format is a unique cross between dialogue, online discussion, and turn-taking speech. Wherever it shows up is fine with me, but by that time, the ideas may already be revised and superseded in my own blog or writing. This media mix produces a *generative* space, not a conclusive authorial space – and I hope others read it as such.

**Eric Reiss:** Why on earth should we say one thing in this conversation and something else for a blog? These days, anything one writes in a public forum can end up virtually anywhere else – and even private thoughts often get publicized.

As always, the best policy is honesty; it simply takes too much energy to keep track of degrees of spin and falsehood. That said, editorial omission is also a powerful commentary. If I have sinned during this conversation, it is because of my decisions as to which comments I chose to address and which I chose to ignore. As Seneca (the younger) said:

"Magna res est vocis et silentii temperamentum."

You have been a gracious host, GK. And I have tried to be a gracious guest.