

Tangible Steps Toward Tomorrow: Designing a Vision for Early Childhood Education

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"The area of early education is experiencing tremendous experimentation and progress, but what has been missing are right brain thinkers. These are individuals whose craft is seeing patterns, making connections, adapting what works in one context to the realities of another context." – Tony Berkeley, Program Director, Youth and Education, The W. K. Kellogg Foundation

In 2007 the W. K. Kellogg Foundation engaged the innovation and design firm, IDEO, to design a compelling vision for the future of early childhood education. The foundation was ready for a new perspective on a well-explored topic. IDEO's design thinking approach engaged the foundation and its stakeholders in new ways that promoted feasible, yet innovative, solutions.

In this paper we describe the combined use of ethnographic-style research and design thinking in a project addressing a complex, systemic and philanthropic challenge: public education in the United States. We seek to provide the reader with a clear and convincing case study demonstrating the value of ethnography plus design thinking in any business context or social system where many stakeholders need to be brought together to work toward a system wide solution.

SETTING THE STAGE

"In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer a pathway to opportunity, it is a pre-requisite."

- President Barack Obama to the Joint Sessions of Congress, Feb. 24, 2009

In the current economy, the United States education system has been singled out as the foundation that the U.S. must reset to build a stronger economic future. However, improving education in the U.S. is an enormously complex challenge, filled with competing expert opinions and a vast number of stakeholders. In order to navigate these challenges and refine their vision for early childhood education, the W. K. Kellogg Foundation (WKKF) sought a fresh perspective to reinvigorate their philanthropic programming. WKKF invited

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our design and innovation firm, IDEO¹, to help them explore the future of early childhood education in the U.S..

The W. K. Kellogg Foundation is a significant contributor to family and education programs across the United States. They are closely connected to ground level community organizations and sponsor a wealth of initiatives. While many successful programs have resulted from WKKF's support, in 2006 they began reaching beyond their traditional approaches to grow their philanthropic efforts.

As Tony Berkley articulates in our abstract, the fresh perspective WKKF sought was one that involved "right brain thinkers". While WKKF deeply respects and places great value on whitepapers and case studies, they sought something more— a generative vision. They desired a way to push their thinking further, to be informed by domains far outside of the world of education, and to be inspired by new approaches. They wanted a perspective that would help people deeply embedded in the world of early childhood education to imagine new futures and find new connections. WKKF wanted to establish a grounded but provocative vision that would compel a deeply engaged, enormous and geographically distributed community to move forward. This was no small challenge.

At the end of four months, we delivered an engaging and accessible book style report with beautifully illustrated, future oriented scenarios. This style of presenting visions from the world of design contrasted positively with reports traditionally seen in education and foundations. Each of the scenarios contained a handful of design concepts including products, services, collaboration tools, and even brands. These scenarios and concepts were well grounded and supported in research findings, insights, and models. This work has had a significant impact for the foundation; more than their traditional white paper reports. Over 5,000 copies of the book have been requested, including requests from Barack Obama's Transition Team and the staffs of the Governors of six states. In addition, thousands of additional copies of the book have been downloaded online. Both WKKF and IDEO have had additional requests for follow-on work sessions due to this report.

What helped this report have such impact? A focus on action and future-thinking. A considered design of the final deliverable that takes into account the many different audiences who could build on the content. We engaged the foundation in the research

¹ IDEO is a global design consultancy focused on creating impact through design. We have covered a wide range of challenges from designing the first mouse for the masses (Apple) to foot powered water pumps for rural farmers in Kenya (Approtec Kick Start Pump). We have designed services, such as Keep the Change for Bank of America and culture shifting organizational experiences, such as a Nurse Knowledge Exchange for Kaiser Permanente. IDEO has a rich history of helping businesses see their challenges in a new light, in order to foster human-centered innovation. It was our challenge to apply the processes of design thinking that have been refined for business problems over the past 20 years, toward a systemic, philanthropic problem space for WKKF.

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findings, scenarios, and concepts. We connected with deep cultural nuances in the realities and past experiences of teachers, administrators, parents, and the community around the school. We worked alongside the foundation to identify paradigms that had to shift and ways of thinking that needed to be reframed through visions for the future. With this awareness, we could push the scenarios and concepts beyond the boundaries of the present constraints, in exactly the right places.

We not only delivered a future vision, but also we provided jumping off points so that those inspired could easily take action. We connected the future visions to actual experimental programs currently achieving success, and we gave key information to write grant applications to the foundation. As a result, not only have thousands of people accessed the information, but the grant applications are building on our initial concepts and make them even better.

We believe that we were able to achieve this kind of impact due to integrating ethnographic-style approaches with design thinking methods. In this paper, we will highlight three key moments that show how we drew these two approaches tightly together, trying to make a difference at one critical base of our global economy.

Why Design Thinking?

Our global community faces enormous and elaborate challenges everyday. While ethnography is an excellent approach for deciphering these complex ecosystems, we need to build upon traditional ethnographic approaches in order to not only understand and reframe the ecosystem, but also to pinpoint opportunities, envision unique ways forward, and ground innovative solutions in human needs. It is not enough to report on the elaborate complexities of the system as it is. In order to have greater impact in the face of vast and pertinent challenges, we must define, articulate and clearly communicate the most relevant paths into the future. Additionally, in today's business environments with heightened attention to many details in business effectiveness and spending, we cannot conduct ethnographic-style insight gathering and assume the landscape of insights will be considered valuable simply for opening eyes or grounding understanding. More creative problem solving should be integrated with research methodologies while retaining deep roots in ethnography.

WKKF advised us early in our relationship that educators might be a difficult audience for a design firm, because our approaches to information are so different. Schools must take on a long-term, slow paced approach to change, because there are so many stakeholders involved and their work is so critical. Because of this, schools more often reach out to the "usual suspects" when looking for new opportunities. A design firm would need to carefully build trust by making our ideas physical and tangible, so that education stakeholders could see the value, and participate with our outsider's perspective.

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Describing design thinking – We will describe design thinking in general and then draw out three particular qualities of design thinking that we will emphasize in this case study. At the simplest level, design has been described as "the human power to conceive, plan, and realize products that serve human beings in the accomplishment of any individual or collective purpose" (Buchanan 2003). Following this, design thinking has been referred to as "a discipline that uses a designer's sensibility and methods to match people's needs with what is technologically feasible" (Brown 2008:2) and also viable in the relevant domain or industry. While design thinking involves thinking about business viability and technical feasibility, the most often focused on lens of design thinking is the lens of desirability. Similar to ethnographic approaches, design thinking begins with understanding people and culture through observation.

However, in addition to understanding people, design thinking's other two lenses—viability and feasibility—involve a problem-solving mindset. In a design thinking mindset, this focus on the future requires many other tools to engage people beyond observations and in-context interviews. In design thinking research, it is commonly known that typical research participants are challenged to help imagine new futures—especially in situations where it is difficult for them to imagine anything other than the ways they have grown up, like the future of education.

To understand the ecosystem surrounding a problem, we value ethnographic-style approaches for deciphering complex behaviors and complex systems. However, we also believe ethnography needs the creativity, tangibility, collaboration and visualization of design thinking to move toward solutions for the problems that business, philanthropy and our global economy face. Design thinking helps pinpoint opportunities, enable decision-making, identify unique ways forward, and build on human needs with visionary solutions. Design thinking uses the designer's skills such as problem solving through prototyping, collaborating, and integrating thinking through co-creation and visualization to provide greater access to rich thinking. When tackling large-scale systemic challenges, design thinking and ethnography need to work together.²

Three Design Thinking Tools for Approaching Systemic Problems

² Our point of view here builds upon the thinking of Christopher T. Hill in his article, *The Post-Scientific Society*. Hill argues that post-scientific societies will reap the benefits of fundamental research in natural sciences and engineering, but the leading edge innovations "whether for business, industrial, consumer, or public purposes, will move from the workshop, the laboratory, and the office to the studio, the think tank, the atelier, and cyberspace." Hill goes on to discuss United States society saying, "This is becoming a society in which cutting-edge success depends not on specialization, but on integration—on synthesis, design, creativity, and imagination." Like Hill, we believe that truly innovative thinking must draw upon the most relevant pieces of many approaches, ground them in the particular culture and integrate them successfully.

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Sacrificial concepts - In order to solve the challenges at hand, design thinking involves early prototypes or tangible, conceptual versions of what the future might be in order to help engage participants in imagining new realities. At IDEO, we often refer to these artifacts as “sacrificial concepts” and this technique as “building in order to think.” By taking prototype versions of the future, no matter how roughly imagined, and sharing them with others, design thinkers are able to provoke deeper conversations about not only the “now” state at hand, but also about what the future might need to hold. This was essential in connecting authentically with our education stakeholders.

Co-creation sessions - A second key factor that design thinking brings to the table is collaboration and integration of multiple perspectives. Often design thinkers integrate perspectives by hosting co-design or co-creation sessions. Design thinking offers many tools for bringing stakeholders into conversations that allow people with vested interests to participate and collaborate together in new ways.³ Again, when it is challenging to articulate what the future might hold, design thinkers often let go of leading a conversation with carefully articulated words. Instead they use the power of design, wild ideas brainstorms and very low-resolution, low quality sketches (stick figures even) of new realities to release boundaries on a challenge and permit creative and integrative thinking.

Accessible communication - A third key facet of design thinking is visualization to make complex ideas accessible. While ethnography seeks to describe a particular topic authentically and fully, design thinking—with its focus on the future and opportunities for problem solving—can distill a description down to the essential elements that are launching points for action. With the tools of information and communication design, design thinkers have the ability to make complex thoughts and new realities incredibly accessible. The old adage, “a picture is worth a thousand words” is powerful for design thinkers. And design thinkers might push that further believing that one well captured, well-illustrated story is worth a thousand pictures. Visualized stories describe findings in a way that is more accessible to a wider audience than whitepapers. When working in the world of education, it was key to reach out to a diversity of stakeholders. It was also key to make the thinking accessible through a variety of formats and touch points.

Combining the careful study of people and culture, with the imagination of design, ethnography and design thinking together offer an opportunity for systemic problems to become more tangible and actionable. What ethnography does not offer, that WKKF needed, was a creative leap from the best practices and most inspiring stories into a vision of the future that could shape the path of early childhood education.

³ While in this paper we are highlighting the integration of ethnographic approaches and design thinking, we must also point out that we integrate and build upon relevant pieces of other approaches as well. Our here regarding co-creation and collaboration also integrates and borrows from action research, cooperative inquiry, participatory design, and other related approaches.

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EXPLORING THE TOPIC

Our firm was asked to explore the topic of early childhood education throughout the United States and to come up with a fresh vision for the future given four months and a team of four full-time and three part-time team members. Over the course of those four months we interviewed more than fifty individuals that make up the ecosystem of education: children, parents, teachers, principals, community leaders, school board members, PTA leaders, home schooling educators, and expert researchers. We observed countless other individuals along the way. We conducted research in six states: California, Georgia, Michigan, Ohio, Florida and New Mexico. In addition to our relatively traditional fieldwork interviews and observations, we conducted ten collaborative work sessions involving WKKF members, experts and other educators.

The first trajectory for finding opportunities in such a systemic problem was to start as broadly as possible and narrow as we learned. WKKF and IDEO agreed that focusing on early education was the only important restriction, but it was a new practice for WKKF to support a project that was so open-ended. But for this experiment on envisioning the future, they agreed that it was important to look for opportunities in all spaces of education in order to find the most inspiring ideas. Therefore we began with a very broad focus, and narrowed toward three areas of opportunity along the way. This may sound fairly typical in good research design. However, the process of narrowing focus took place using distinctively designerly methods. We used sacrificial concepts to help indentify the most interesting and controversial areas.

At the beginning of the project, with our focus broad, we entered classrooms and observed everything, nothing was off-limits⁴: architecture of classrooms, standardization of texts, parent outreach programs, school organizational structures, school board processes. But fairly quickly, initial hypotheses began to emerge. One of the most important themes of our project was captured as a sacrificial concept. It first emerged in the following way.

One of the first teachers we interviewed described many of the obstacles he faced in his role as a teacher. This teacher discussed his commitment to bringing up the reading scores of all of his students, despite beginning the year with eighty-percent of his students falling well-below “proficient.” He bemoaned mandated participation in “Academy for Success,” a program purchased by the school to overcome their underperforming status with the No Child Left Behind act. Amidst all of his challenges, one moment grabbed our attention in

⁴ With the team assembled we began a small number of observations in classrooms to see teachers in action and interviews with parents and students. This helped us begin understanding the perspective from those most directly involved. We built empathy by attending public and private school events, talking with teachers about curriculum goals and school structures, and having interviewees map out the ecosystem of the public school and education.

particular. This teacher would inform parents about classroom activities via mobile phone text messages, because any other format was too often “lost”. This interesting workaround for communicating with parents could have easily been overlooked amongst the teacher’s frustrations with public school funding. But as our research continued, we were confronted by observation after observation pointing toward the difficulty of engaging parents in their children’s education. This teacher’s story of using text messages for outreach became a shining example of meeting parents where they are, with small bits of important, relevant information.

Spotlight on Sacrificial Concepts: Prototypes Make Early Hypotheses Tangible

As we engaged in these first steps out into the field, stories like the one above about the teacher struggling to communicate with parents stood out to our team. Bringing to bear methods from design thinking, very early on in the project, we made our hypotheses about the future of education tangible. We drew sketches to imagine how key challenge areas might be resolved in the future. These informed the structure of our interviews and observations as we continued with fieldwork. Design thinkers typically refer to these as tangible hypotheses as concepts or prototypes. However, at IDEO, we refer to these radical, early stage concepts as “sacrificial concepts”. We’ll explain why.

Although it is a somewhat playful label, we find it is helpful to our design teams and clients to understand that these early stage concepts are distinctive from later, better thought out concepts. Sacrificial concepts come from our earliest inklings, gut level inspiration, and informed intuition. However, they are by no means intended to be “correct.” This lack of correctness helps in multiple ways. Firstly, we can work with our design teams to feel out the boundaries of a problem with the sacrificial concepts. If sacrificial concepts are intentionally radical, then design teams can pose thoughts that may get thrown out for being “too far out”. But yet they also have an opportunity to share some fairly wild ideas and to see if there’s a nugget of potential wrapped up in them.

This leads us to the second reason that sacrificial concepts are helpful. We take these sacrificial concepts and use them in interviews. We introduce them carefully toward the later part of interviews with stakeholders and use these concepts to get discussions of the future into a more tangible space. It is always a challenge to talk with people embedded in a certain worldview about what things might be like in alternative futures. Sacrificial concepts, especially when presented in a more playful manner and explained as “absolutely not intended to be correct”, provide an excellent means for helping participants to think about new realities in a more concrete way.

Thirdly, sacrificial concepts can provide an excellent way to introduce subjects that are challenging for people to openly discuss. Artifacts that are tangible and provocative help us ask the unasked question, “Why not?” A visual or image brings participants into a more realistic experience of the idea, in context, and often prompts a visceral reaction that a simple interview question might not have. Sacrificial concepts can help people open up and

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talk about topics they might have been more reserved on when only approached in conversation.

For example, in response to observations and conversations highlighting how challenging it was to engage parents in their children's education, we drew a few concepts around a theme of parent readiness.

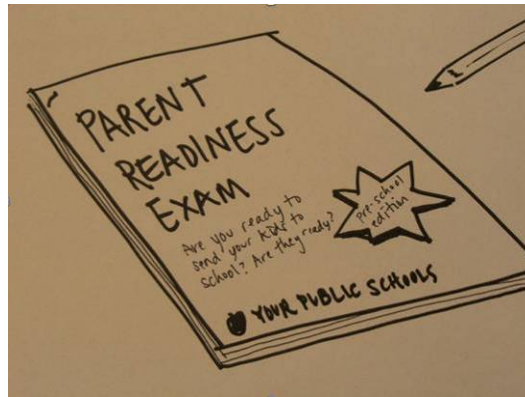


FIGURE 1 SACRIFICIAL CONCEPT. This early stage prototype brings to life one of the teams' hypotheses. This hand drawn sketch was utilized to provoke more future oriented conversations with stakeholders we met in the field. This concept shows how we began conversations and ideation about a controversial topic: parent readiness.

Sharing this concept in the field helped us to engage stakeholders in deeper and more productive conversations about alternative futures. For example, we found that many teachers were respectful and empathic when talking about the challenges they faced with getting parents engaged in the classroom. However, when we showed a small group of teachers the sacrificial concept, it got a powerful reaction. The teachers opened up much more, talking about their changing expectations and constant disappointments with parents.

The detailed responses against an extreme "parent exam" sacrificial concept helped steer us toward something more suitable. Instead of requiring parents to take a test for Kindergarten, our concepts evolved into a softer approach of designing ways for schools to treat parents as valued guests. The scenarios progressed to positively reward parents for their engagement with the school.

ENGAGING STAKEHOLDERS

If the first trajectory of our project was to start with a broad focus and get more narrow through techniques like sacrificial concepts, a second trajectory throughout the project was more counterintuitive. Typically research starts with a large group of participants in the beginning and narrows over time. Instead we started with a small set of interviews and observations, carefully chosen to represent extreme experiences in education. From there, we progressively engaged larger and larger groups of participants not only to observe, but also to collaborate, offer insights and co-create potential solutions. This process of gradually increasing the numbers of people we engaged finally culminated in a very open and easily accessible final report that was structured not as a final conclusion, but as a platform from which many other educators could start from to write their own grant proposals. This trajectory lines up well with the other moments we will elucidate below: collaboration and co-creation as well as making complex ideas accessible. In order to have the most impact, increasing the number of participants involved across the scope of the project was instrumental.

In the continuing months of the project, we traveled to WKKF sponsored and other programs around the country.⁵ We also began engaging education experts and drew upon their wealth of knowledge and years of experience to understand issues that would have been challenging to access in our four-month window. From Steve Greely, president of the non-profit consultancy, Development Communications Associates, Inc., we developed a more nuanced understanding around underprivileged parents' feeling marginalized by the "system" of school. He has seen, over several years, that the programs that are most successful in engaging parents in a child's education don't feel like systems. A strong example could be seen in the program in Miami, where public school principals traveled to local pre-school programs to meet and greet parents in an environment where parents are comfortable. Steve's insights pushed our team to lean toward future experiences that would feel more like the rest of life, than like the school system.

Spotlight on Co-Creative Sessions: Bringing Perspectives Together Through Design

When embarking on such large scale challenges, we believe that to collectively move thinking forward, not only the fieldwork, but also the analysis, meaning making, and concept development, must be collaborative and co-creative processes.

⁵ As we met with non-profit organizations it was important for us to refine our introduction. It is too easy for organizations to see us as evaluators, because that is the more common use of observation methods in schools. We created introduction letters with descriptions of the innovation work that IDEO takes part in, and made sure to emphasize that we are not experts in education, we were looking to each site for inspiration, seeing opportunity in the programs they are running.

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After completing the majority of our fieldwork, we used techniques for engaging stakeholders in rich dialog. In the middle phase of our project, we developed careful collaboration moments with the foundation, educators, and other experts. We were careful to balance the depth we needed from these experts with our own abilities to look across industries and add breadth to a deeply entrenched issue. Crafting these co-creative sessions engaged experts in a way that was different from past conversations they were accustomed to. The work sessions felt like design studio experiences rather than academic conversations, even though the topics were similar. They were invitations to early childhood education experts to co-create with us so that we could move toward a common vision of the future.

In these work sessions, we highlighted key stories from the ethnographic-style fieldwork, shared many of our evolving hypotheses, and evolved the thinking further. But the centerpieces of these work sessions involved a more future oriented creative activity. Together we visualized new futures and involved the design capabilities of our illustrators to bring these to life beyond words. For example at a work session with WKKF engaged educators in Miami, there were over fifty participants. Instead of hosting the normal kind of discussion they would have had about policy and programming, we invited them to brainstorm “wild ideas” to really help them “think outside of the box.” We worked with them to illustrate their ideas and bring them to life with simple drawings. In this session, the educators offered solutions they might not have considered otherwise. By creating an environment that felt more playful, and less weighty, these passionate educators were enabled to think more creatively, and they remarked on how refreshing the experience was.



FIGURE 2 COLLABORATIVE WORK SESSION ARTIFACTS These sketches came out of co-creative sessions that involved brainstorming and facilitated sketching with education experts. These generative sessions helped to breathe new life into old debates. While some concepts were more purely playful like regular parent-teacher Happy Hours, other concepts may have seemed radical at the time, for example, letting companies pay for “product placement” in classrooms. Many of these co-created concepts later led to relevant and viable ideas.

COMMUNICATING THE VISION

Following a series of ideation workshops with education stakeholders, our core team shifted gears more extensively toward establishing our vision of the future, including solutions, visualizations, and communication. Staying in close contact with WKKF and reaching out to more grantees, we used formative feedback sessions to continue narrowing our focus and broadening the stakeholders involved. From over forty storyboarded concepts, we looked across our selection for those that resonated most with our collaborators. We identified three major areas of excitement for the future of education in the U.S.: Engaged Parents, Empowered Teachers and Connected Schools. These became the areas in which we hoped to inspire action and add focus to the efforts of the foundation.

In order to be sure that our ideas were aligned with the goals of the Kellogg foundation, we created a single narrative for each of these three major areas and again held detailed review sessions with members from the client team. They were able to help us weave in and connect with important successes and best practices already in their programs. For example, they were able to call out that we could connect many aspects of the parent engagement program to success in the SPARK Ohio Parent Partners program, where paid coaches help parents of young children prepare for the skills of Kindergarten. This helped to ground our scenarios in real successes and provide educators with ways they could begin to take action beyond the narrative.

Spotlight on Accessible Communication: Highly Visual Via Multiple Touch Points

The core means to capture the future vision and share it with the WKKF grantees was a book. The centerpiece of the book is the three scenarios, which illustrate each major call to action and present a handful of specific concepts. These stories led the communication with lush illustrations and more emphasis on the perspectives of the individuals in the education system (parents, teachers, school leaders), and less emphasis on the educational details. By engaging audiences with these stories, we were able to draw readers into the vision. The illustrations were a deliberate choice to challenge assumptions that quality thought about education only comes in the form of long reports.

Following each narrative and the concepts shared, we connected to information that would enable readers to take action. We supplied information about what could be done in the near and long term and important issues to consider. The narratives encapsulated programs, products, services, and communication strategies that are clear and actionable. Our main audience for the book was community organizers and leaders who might take the next step of pursuing one or more of the concepts in their own community. We wanted to provide as much support as we could for this type of follow-through. For each concept, we included the type of information that might be asked for on a grant application. We described the key stakeholders for each idea, the opportunities and risks, the potential

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resources needed, and the intended impact.



FIGURE 3 The Final Scenarios. The final scenarios brought to life well thought out concepts through lush illustrations and narratives. The concepts around text messaging had evolved based on teacher feedback to be include information about classroom learning, such as “remember to look at the stars tonight” rather than about continually up-keeping personal SMS communication.

Although the books with narratives and detailed concepts were the centerpiece of communicating the vision, we realized that we needed to make it accessible through multiple channels and at multiple levels to impact the largest possible audience. On the WKKF



FIGURE 4 The Detailed Concepts. In addition to providing engaging and easily accessible narratives to bring the concepts to life, the vision for early childhood education also provided helpful details behind each and every concept. These details included steps that could be taken in the short and long term as well as other programs to reference that had tried similar innovations. All of these details would assist educators with their own program designs and also with applications to the foundation for grant money.

website we offered a free digital copy of the book that could be downloaded. Or if this was a challenge, they could request a printed copy, which would be mailed to them free of charge.

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However, the book is heavy with detail, large format and expensive to print, therefore we also produced brochures for each of the three main scenarios to make a much lighter version of each narrative accessible. WKKF team members have used these as lower cost takeaways following discussions about their work. In addition, the illustrated human-centered narratives led easily into a video format. We took the scenes of the narratives and created videos with voiceover so that the WKKF team members could present the stories in an inviting way, whether through email or in live addresses.

WKKF appreciated our emphasis on a tangible, actionable, and accessible vision. Tony Berkley described it in his presentation of our work to the SPARK grantees, “We realize that coming up with provocative designs is actually not the hard part. The hard part is actually spreading these ideas to other funders, to systems leaders, to parent advocates and to other leaders who can actually adapt and adopt these designs in their own work.”

We built upon our understanding gained from our ethnographic-style observations. We created a vision and communicated it using tools from our design thinking approach. Together these mindsets created a powerful impact.

CONCLUSION: IMPACT AND LEARNING

In the two years since this vision has been created and communicated, there are a number of means to assess success.

- **Generating widespread interest in the initiative** - Our first printing of the *Tangible Steps Toward Tomorrow* book included 250 copies for the foundation to give away. These were gone within a few days. WKKF then printed 5,000 more copies book. These have been given away by WKKF, including copies requested by President Obama’s Transition Team and the staffs of the Governors of six states. In addition, thousands of additional copies of the book have been downloaded online. While the visual narratives draw in the readers, we found that the details developed alongside experts and the final concepts are what make the book feel useful for motivating stakeholders throughout the ecosystem.
- **Inspiring further work sessions** - In 2009, WKKF asked IDEO to take on another piece of work with influential members in the education space. Kellogg saw value in engaging thought leaders of the education community in dialogue around topics identified in the *Tangible Steps* book. The chosen topic for focus was parent engagement in schools. IDEO designed another large-scale, collaborative work session to spark dialogue and inspire action around this topic.⁶

⁶ The workshop also showed participants a way of framing challenges in a proactive and manageable way that compels action. The effects were different for each individual. One attendee felt empowered by the process of visualizing her ideas. She described her experience this way, “We’ve been talking

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Human centered design requires a new approach for WKKF and a new perspective for how they might approach their work with community organizations and experts more collaboratively. Berkley describes the outcome for his team at the foundation this way, “When we refresh our own way of working we see the benefits immediately. The level of engagement by our staff with IDEO’s work has been through the roof.”

The foundation has engaged with the content of their own work in a new way, one that is more about imagining future possibilities than proving past successes. While evaluation is an essential part of proving the value of philanthropic work, it was refreshing for the team to step out of their reviewer roles and help to construct ideal futures that combine several different methods and best practices, making leaps into the future, rather than careful moves.

Designing for systemic problems requires new approaches for design thinking: tackling even broader problem spaces, creating new types of deliverables, enveloping enormous amounts of stakeholders, and discovering new ways to engage. Our participants do not have a framework for understanding designers, and it takes time to overcome the expectations that we are auditors. And perhaps most importantly, our clients are not the judges of success.

Both IDEO and WKKF have learned from the experience. Some key principles for approaching complex, systemic problems with design thinking could be:

- **Tell stories rather than describe demographics** – Our research revolves around the inspiring stories that come from individuals. Therefore we use stories and photographs to capture moments and emotions. Rather than typing demographic information into a report, we recite inspiring stories from memory.
- **Start with inspiration, not a point of view** - We were to look for opportunities in all spaces of education in order to find the most important ideas. Therefore we began with a very broad focus, and narrowed toward three key areas of opportunity as we learned along the way.
- **Collaborate early and often** - When embarking on such large-scale challenges, we believe that to collectively move thinking forward, not only the fieldwork but also the analysis, and meaning making and concept development must be co-creative processes.

about the educational philosophy of our new early education program. We've had good discussions, but nothing rockin'. [After the workshop] I suggested we draw images of student success and things went to another level!”

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- **Provide provocations, don't be afraid of hard topics** - In order to solve the challenges at hand, design thinking involves early prototypes or tangible, conceptual versions of what the future might be in order to help engage participants in imagining new realities.
- **Offer actionable ideas and visions of possible futures** - Combining the careful study of people and their actions through ethnography, with the imagination of design, and design thinking, offers an opportunity for systemic problems to become more tangible and actionable.
- **Deliver engaging, accessible documents, not high-level reports** - A key facet of design thinking is visualization to make complex ideas accessible. Design thinking - with its focus on the future and opportunities for problem solving - can distill a description of the present down to the essential elements that are launching points for action.

Principles like these, developed in the highly collaborative and stakeholder-rich environment of philanthropy, in turn have shaped our approach to business problems. They have helped us approach complex organizations like government institutions and other challenging business contexts such as conglomerates of for profit and non-profit organizations. We believe that ethnography can be instrumental at the very foundation of this contemporary economy and the global business community. But it must be combined with design thinking to incorporate actionable, tangible strategies to have deep impact.

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