

B. AUBREY FISHER MEMORIAL **20**
16 **LECTURE**

**“Shaping a Resilient Future: Inclusionary Career
Cultivation Through a Design Lens”**

Patrice M. Buzzanell

*Distinguished Professor of Communication
Purdue University*

*Thirtieth Annual B. Aubrey Fisher Memorial Lecture
University of Utah, October 20, 2016*



**Department of Communication
University of Utah**

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Introduction

It is an incredible honor to be able to deliver this lecture. So many people in our field—undergraduates who are studying communication, graduate students, and faculty—know and appreciate B. Aubrey Fisher’s scholarship. His work has withstood the test of time. To honor his memory and be able to deliver this address, I would like to tell a series of stories that have to do with individuals’ decision-making and relationships within complex familial, community, and national contexts regarding

This main project story is about choices, human and non-human agents that influence career decisions, and the relationships and information that are key to children’s formation of their work identities and aspirations.

their careers and meanings of work or goal-oriented activities. In stretching B. Aubrey Fisher’s legacy to accommodate my topic, I will tell you a number of stories about an engaged communication scholarship¹ project about how children and those who surround them cultivate career interests and envision their own and their communities’ futures. This project was designed both to assist the Greater Lafayette Area to compete for corporate funding and to contribute theoretically and pragmatically to scholarship on career as

a communicatively constituted design process² with career conceptualized as the theme and structure that underlies much of our job, work, and non-work activities.³

This main project story is about choices, human and non-human agents that influence career decisions, and the relationships and information that are key to children's formation of their work identities and aspirations. Interwoven within this main narrative are stories about past team-based projects (hearkening to B. Aubrey Fisher's enduring interest in group processes), research that other people are doing, and a glimpse into what our future might look like. As my title suggests, I am talking about processes of shaping a resilient future—one that is adaptive and transformative, responsive and proactive, discursive and material, for self and others, anticipating and thriving despite and because of disruptions in life—deeply embedded in communicative interaction and network structures for the present and the future.⁴

To begin, there are different stories behind this project and lecture. The first is that I had researched (a) career discourses and cultivation, examining how very young children talk about what careers and work mean for them and the language they use to express these choices.⁵ I also had advised or co-advised four engineering design teams of which three involved very young children and youth (middle and high school participants), as well as university students.⁶

Nested within the overarching narrative—between career discourses and cultivation and the America's Best Communities (ABC) contest story—is the expertise brought to the ABC project by my partner, Steve Wilson, who also is a professor in the Brian Lamb School of Communication and father of our six children. He does work with the Military Family Research Institute at Purdue University as well as in other contexts. He has been studying communication and resilience in families that have had members who have been deployed⁷. Overall, he and his

research teams have sought to understand how children, youth, and adults experience and communicate about and during disruptions in their lives based on family members' military deployments, re-entry, and other assignments along with disconnections from their peers who do not understand military life.⁸ At times his research has focused on conversational and privacy dilemmas, with family members trying to figure out how to talk about difficult issues with individuals who have been deployed without alienating these individuals and how youth can make decisions about sharing private information.⁹ Applicable to my comments today, Steve and his collaborators have gathered data from children and youth about communication processes and practices to that derive communicative understandings and interventions. Because of his engaged communication scholarship in local, state, and national contexts, Steve was the initial contact for the main project about which I speak.

Finally, the big picture story is the (b) America's Best Communities (ABC) contest which was a Lafayette community effort that enabled Steve and me to collaborate on our first research project together with a wide variety of people in the Greater Lafayette Area in general and in association with offices at Purdue University. And that is where all of this comes together and brings us to the present.

Career Discourses and Cultivation

Much to the amazement of some of the girls from the Greater Lafayette and Indianapolis areas, we actually listened to them and brought our work back to them for review on multiple occasions.

In this section, I discuss (a) my interests and background in careers and engineering, and the intent of a grant funded by Purdue's College of Engineering.¹⁰ I layer in (b) key career and communication processes, exploring (c) gaps aligned with opportunities for theory and practice, and conclude this section with (d) snapshots of findings.

In 2000, I began advising engineering design teams with the first being ABIWT-EPICS, or the team affiliated with Anita Borg Institute for Women and Technology (<https://anitaborg.org/>)

under the auspices of the Engineering Projects in Community Service (<https://engineering.purdue.edu/EPICS>), co-founded at Purdue by Leah Jamieson who also happened to be my co-advisor (instructor) for ABIWT. Men and women university students in this multidisciplinary team endeavored to pull girls, particularly very young girls, into engineering and other disciplines associated with STEM (science, technology, engineering, and math). We wanted to spark their interest, maybe as a major in college, maybe as something to think about in terms of the work and careers they might do, and maybe simply to ensure that they knew that they had a voice in technological—hardware and software—design processes. Our team held workshops for girls around the ages of 7 to 13 years (with some as young as 5 and others as old as 15, with boys participating as well) in which we gathered ideas for our designs and beta tested our prototypes. Much to the amazement of some of the girls from the Greater Lafayette and Indianapolis areas, we actually listened to them and brought our work back to them for review on multiple occasions.

For instance, long before there were covers for laptops and cell phones, we had designed “shells” into which the girls could insert their laptops. We were thinking at that point in time—this is about the year 2000 or 2001—that the girls may not necessarily have access to new laptops, but that somebody might give them a used laptop. When they received them, they would want to make their own their own. Some of these covers we designed had glitter; they had different colors. The laptop shells had spaces where they could put their best friends’ pictures. They had easy access to the pictures, so if the best friends changed, they could pull the photos out and insert somebody else’s pictures. These laptop shells also had secret compartments and came in different shapes and ways of carrying the laptops.

This first team provided a site in which I could apply my interests in careers, gender, organizational communication, leadership, and teams.

It built on my dissertation, executive education instruction, and dual (technical-managerial) career consulting with engineers and my emerging interests in feminist careers and organizing.¹¹

I began to look more deeply into why and how women (and men) were not necessarily going in the STEM disciplines as majors and careers. As you know, there is both a national and international need for engineers expressed in the 2011

White House Council on Women and Girls (<https://obamawhitehouse.archives.gov/administration/eop/cwg>) and other materials. My long-term interests in career

communication, the meanings of work, the values we place on work, and work-life issues extended to children. For professional and personal reasons, I was curious about children: what they say, what they do, what happens with what they are thinking about early on in terms of work and careers.¹² We can all reflect upon the different kinds of work and careers about which we fantasized and role played when we were younger. Our dreams may have been totally unrealistic, as some of mine were, but we thought and talked about them. For many of us, these early ideas remain in our memories and imaginations. But other children grow to enact these types of work as youth and as adults. For example, Gabor talks about how children take and/or give music lessons and perform in concerts.

The College of Engineering YES grant that grew out of scholarly and personal interests and experiences was not a great deal of money. The funding limits were consistent with the notion that this grant would support a pilot or small-scale study to try out ideas. However, what was conceived of as a pilot study actually grew into a project that gathered interview and focus group data from 800 children living in 4 different countries and speaking 4 different languages! Moreover, our research team had three translators who did what we called “contextualized translating.”¹³ What this meant was that we actually sat down with translators to find out what specific words meant and why children might have used the language

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that they used. We constructed margin notes that also delved into national educational systems and everyday knowledge about career socialization that a cultural insider might know but about which we might have little or no experience.

In some cases, we were not native or even second language speakers. But even when the children were speaking English and had grown up with English as their first language, we did not always understand their cultural communities, why and how they spoke as they did, and what particular terms or references meant as they told us about their lives. Understanding them and the environments in which they lived were important for analyzing the data that we gathered over the course of 18 months, with 3 or 4 year olds through 4th graders around the age of 10, and with complicated Institutional Research Board (IRB) approvals.

Although there are many different conceptualizations and metaphors for career, for this talk and the publications from which I draw, career is the “*discourse [and materialities] through which work acquires coherence and meaning*” over the course of a lifespan also phrased as “the themes that underlie work-related experiences and the structures that emerge from and direct such activities.”¹⁴ Career is manifest in individual choices and work histories as well as career trajectories and occupational advancement tracks. Career derives meaning through symbolic value that people associate with certain kinds of work which increasingly aligns with “calling” in popular and academic circles.¹⁵ Career is coherent and ambiguous; career involves sensemaking and structure in recursive and iterative patterns; career is seductive and political.¹⁶ Career draws on what we say and do as well as our unconscious desires.¹⁷ In executive education and careers seminars I have instructed, I have found that participants whose careers are not marked by the passion and meaningfulness of calling feel as though they are missing out on something. All of these ideas, feelings, actions, values, identities, and structures are intertwined in what we know about career

discourses, materialities, and cultivation.

Additionally, we think we stop and start careers with popular and academic discussions indicating that individuals have 7, 10, or more different careers in their lives.¹⁸ But these figures usually confound jobs, occupations or professions, and careers. The definition used in this talk acknowledges that usually there is something central—maybe some

life interest or abiding fascination with a subject matter, skill, or activity and processes—that carries through our work lives. That is the aspect of career in which I am interested. That aspect with its unfolding and differentiated coherence and meaning surfaces in our stories of our careers and in our enactment of work that we find fulfilling and pleasurable. It is those stories about the choices that people make (or think that they make) from their earliest moments to their deaths that never fail to fascinate me.

There are many gaps in our knowledge about careers. With regard to children, especially very, very young children, early career processes are inadequately understood and are often collapsed into exploratory career stages stretching from birth through adolescence or “fantasy” phases that might last until around age 11.¹⁹ Fantasy does not mean that what children are discussing is absolutely outlandish and unrealistic; what it means is that the children do not have all of the pieces put together in terms of the skills, abilities, and resources that they might need to actually pursue what they are considering.

A lot of the research that has to do with career “choice-points” and cultivation really comes about when children reach middle school, and sometimes a little bit later.²⁰ At those points in time, as you know, children (and parents) need to start selecting the academic tracks in which they are going to study during high school and college; they are provided with vocational testing; they talk to guidance counselors about what they might be doing and so on. Their career choices and interests often stabilize somewhat for particular groups

of children and careers.²¹ They are at a specific point in time—a turning point in their lives or a critical career phase—in which they and others are making decisions that have short- and long-term consequences for their learning, lifestyles, income, employment, community status, and retirement.

Yet, my own and others' research indicates that children prior to first grade and even kindergarten have some important insights about their careers and work and that these children's interests are relatively stable, particularly for certain groups of children and careers at different times during childhood.²² The issue is that we do not fully know what happens with children and their careers at these points in time. Children seem to change their minds. They are learning so many new things. What they say and what they do is not deterministic. You know, you cannot talk to a 3-year-old and predict that what the 3-year-old is saying he or she wants to become is actually what that 3-year-old is going to be doing 20, 30, or more years in the future. Becoming a professor at a research-intensive university would not have been in my own 3-year-old plans!

From a careers lens as lifelong discourses and materialities that narrate and provide coherence (with ambiguities and contradictions admitting change) to work in our lives, we may begin to see interests and skills emerging and/or being downplayed by the children themselves and by others. Direct experience and cultural resources are significant factors in development.²³ Caregivers' and other socialization agents' adherence to philosophies of cultivation of interests and talents and/or to allowing the natural progression of such interests and talents are grounded in different resources and have long-term effects.²⁴ We also know that circumscription is important.²⁵ What this means is it is not simply what children report as their interests, but also what they do not discuss and that about which they express lack of interest and motivation to

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pursue. Some research shows that slightly older children who indicate that they have limited or circumscribed their careers—ten years down the line, these delimiting discourses and behaviors still affect their behaviors, willingness to learn, and career outlooks.²⁶

My colleagues and I pulled this all together into the funded YES project where we looked at children from four different countries. I would like to give you a snapshot of what we and others following up on this research have found.²⁷ In China, for example, one of the five-year old girls lived in a major urban area where she attended a university school. She told us that she was reading 100-page books that were about scientific experiments. She was going through that book and doing all of those different experiments. In talking about what she wanted to be when she was older, she listed names of scientists and talked about one specific experiment that she had just conducted. It was a remarkable transcript not only because of her detailed knowledge and commitment to science, but also because this participant was five. But not only was she doing the work, she had access to the vocabulary, knew the equipment, recited the scientific method steps, and could identify the names of the major figures in her field. She could project herself into a scientific career and had discursive and material resources to continue in that area. We also had another little boy whose family took one of the bedrooms in their two-bedroom apartment to built a lab for him so that he could conduct chemistry experiments. He, too, was around five years old.

Although the children in Belgium who participated in our study were not as affluent as those in China, these boys and girls also described access to, embodiment of, and relational cultivation of work and careers. They were surrounded by siblings, cousins, neighbors, and family friends who talked to them about work, took them to places where work was per-

formed, and encouraged them to try out pottery, computers, dance, massage, and other activities aligned with their current interests. Their remarks were detailed and specific. They even talked about the office politics and work-around for doing the work that they envisioned for themselves.

In Lebanon the children talked specific kinds of careers in medicine, law enforcement, engineering, and other areas in which they were interested. One girl who was about 7 years old talked about becoming a judge and writing policy. Although the occupations could be categorized as “responsible careers,” meaning that they entailed work that would contribute to social challenges and justice,²⁸ upon reflection it occurred to us that their contextualization of this work indicated that it was all about rebuilding, repairing, healing, protecting the Lebanese people, doing things so that people could recuperate from the wars that had occurred in Lebanon—wars for which they had everyday reminders. Their language bespoke an “Us versus Them” mentality. They were indeed socially responsible careers. But we also found as we were looking at these children’s transcripts that their careers were *in reaction to*; they were *rebuilding*, not building. They were repairing structures when they discussed engineering projects. They were protecting against the enemies of Lebanon when they discussed military and police force careers. They were getting medical degrees or devising policies so they could counteract the effects of war. These are very young children. They articulated their country’s enemy in very specific terms. These very young children situated themselves within ongoing geopolitical conflicts when we simply asked them what they wanted to be when they grew up.

And, finally, in the United States we had a group of affluent children as well as a group that came from an incredibly poor urban area where over 90 percent were on free meal programs. When I visited the school principal to gain access,

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Political key words do not come with instructions, and they point to a society’s deepest values.

she said, “The parents here are unemployed or have jobs that the children can’t speak about. I don’t know why you want to do your study here.” To which I responded that I actually did want to hear what these children had to say. What I found was that whether the children were four or five years old or whether they were ten, a lot of what they were contemplating for their future work

consisted of sweeping floors or serving meals in fast food restaurants or other places, and so on. They wanted to be employed to put food on the table, to keep the electricity

going, to buy things that they and their families needed. It was the motive of earning money that was important to them. They listed jobs that they observed everyday or heard about from others. I do not wish to disparage these kinds of employment—there is “no shame” in them.²⁹ But the children did not imagine other possibilities nor did older children add complexity or nuance to their career descriptions. As the principal had predicted, the children did not talk about their own parents or extended family members; they would talk about their neighbors or people whom they observed working at stores and health care clinics.

In sum, the children were engaging in different kinds of communicative processes that were embedded in the spaces where they were situated culturally, materially, politically, economically, and relationally. They were de-

signing their careers; they were learning and working with human and non-human agents—parents, relatives, neighbors, books, chemistry equipment and the scientific method—to extract cues by which they could make sense of their careers.³⁰

One of the little girls in Belgium was a good example of using cues in career sensemaking. She told us that she wanted to be a massage therapist. The facilitator asked, “Why a massage therapist?” The girl noted that she gives massages—neck rubs—to her mother. She relayed that her mother said that this little girl does a really good job of massaging

her neck and that she could get a job doing that kind of work. Moreover, on a family trip, young girl learned that massage therapists were very good-looking. She thought that this would be the kind of career to which she would aspire.

Children extract cues to figure out what work activities they might want to do, how they might envision themselves in particular employment contexts, and where they might find meaningfulness within particular kinds of jobs, work, and careers. The sensemaking continues through their lives.³¹

Their career leanings may be cultivated as indicated by the data we have from China, Lebanon, and Belgium, or may progress “naturally”, that is, without explicit encouragement and resources as happened in the low-income U.S. site. Lareau’s different patterns or philosophies of concerted cultivation and natural progression likely operate in dialectic tension. As you think about your own lives, there probably were aspects that have been cultivated and aspects where you were operating in a natural progression kind of mode. With this background in mind, I would like to fast forward to 2015 and the main narrative thread for the lecture today.

America’s Best Communities (ABC) Contest

Around mid-August of 2015, Steve and I received an intriguing phone call. I am paraphrasing but the phone call basically said: “We’ve got a really exciting possibility for you.” If one gets a phone call like this, any sane person would run. It is going to be something that one had not contemplated and should think twice about agreeing to participate in the “exciting possibility” or “opportunity.”

Basically what was happening was that Lafayette was one of 50 locations that had been selected to be part of the America’s Best Communities (ABC) contest.³² The Lafayette team had a little bit of money because of that selection. The team

was quickly moving into the next rounds. And the next rounds were \$1 million and up to \$3 million in terms of investment in the city itself. The team’s idea was to talk to very young children, and they were trying to figure out who in the community had actually done research with young children. One answer was Steve and me. So that’s why we got the phone call.

As we listened, it became clear that this was a start-to-finish design project involving children, with an ever-changing mission and “script” being created for video production and implementation.

It also became clear that the project had a totally impossible timeline, with little funding, and a somewhat shifting set of community partners with whom we would interact.

Steve and I chatted very briefly with our hand over the phone as Steve half-listened to our contact. Our conversation went something like this: If we were going to do this project, there were quite a few things that had to get done immediately. The timing was such that our new semester classes were starting in about a week and we were already in fall semester meetings and course syllabi finalization. We already were in the midst of projects; I was directing a leadership center with a huge conference in less than a month and a semester program to finalize. For the ABC project, we had to design the research project, hire a part-time graduate research assistant (Jessica Pauly, whose semester assignments had to be reworked), hire a lot of other graduate students hourly to collect data, obtain IRB approval especially because our participants were children, organize and set up sites for data gathering, coordinate with video production and recruitment personnel, gather data, obtain transcriptions of all the videotapes and check for accuracy, analyze the transcripts and review videos for details, write up the findings with examples and implications in a report, help prepare promotional materials including finding a real rocket scientist willing to go before the camera and talk up the idea (thank goodness, I had friends

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in aeronautical and astronautical engineering at Purdue!), help construct implementation materials including establishing a summer engineering design team and locating a willing partner to program a virtual reality venue overnight, and finish it all by mid-October so that the final project could be submitted at the start of November as per contest regulations. With the phone call still continuing, when the person who approached us came up for air, we said “yes!”

The first phone call explained the project one way. Every time we met with the key organizer and other partners—marketing people, the mayor’s office, video production personnel, after school program directors and teachers, and a lot of other people—the story changed. So we are starting to move through and co-design this project. Remember: the phone call came mid-August, mid-to-late August. The contest video tapes and all the materials including implementation plans were due by very early November.

Our community partners’ aim was to be able to compete in this contest and hopefully win. They felt that children’s ideas about the Lafayette community could help grow and support a culture that promoted life-long learning among all members, especially children. Steve’s and my aim was to conduct research that would assist our family’s home community to achieve resources for development plans. For me, this was an opportunity to understand how very young children in my own backyard tried out their career designs by incorporating visualizations that would help me gauge the specifications and depth of their career design processes and that would ask children to imagine the contexts in which their work and careers would be embedded.

By design, I meant the process through which people define interests, specify resources and constraints, learn through failures and ambiguities, visualize possibilities, present prototypes

for review or critique, and create deliverables with sustainability.³³ For me, these processes translated into how young children do career and how we envision our project in situated environments through messy iterative processes.³⁴

In other words, we wanted to know how the designs that children would create in terms of their careers would evolve in depiction during their visualization processes and would display aspects that they could verbalize. We were interested in what they might not have been able to articulate, maybe because they did not have the language yet, or maybe because they simply had not thought about those kinds of things. These ideas foregrounded processes of design that pervade my discovery, learning, and engagement.

As a mini-lesson in our main story, let me mention my fascination with design. When we think about it, we all are engaged in design. Every discipline has design. It is a remarkable process. We start off with an idea, or, often, in an engineering project, we start off with a problem. We begin to figure out—by talking to the potential users, if we are engage in user-centered design—what it is that the potential users want and why they want it by asking questions about their lives, their cultures, their communities, their resources. We gather data by observing how people move in the space within which they live and work, talking to many individuals and groups,

and often finding, as I would find in my own design teams, that what they articulated as the problem may not really be the central interest.

Design goes through all these different iterative phases, deeply embedded with communication and ethical decision-making about design features and users.³⁵ We discuss what kinds of materials we would utilize, what specifications fit in terms of what the design is going to look like and its functionality. We prototype, prototype, and so on, until we can come up with some kind of design

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that perhaps is sustainable. Well, that is really what we do when we are crafting our careers. This is what children are doing—this kind of messy, iterative process. I wanted to work in this space.

The other part of our project was visualization, as I said before. Visualization in engineering design can enable participants to explain and persuade, clarify and create ambiguities, and construct and share meanings for self and others.³⁶ Visualization through art enables youth to connect time, space, and identity—core career and career communication dimensions³⁷—in ways that capture their future orientations, prompting researchers to “question how they approach to tend towards the very process of imagining the future.”³⁸

There have been many projects around visualization with children and youth: “Draw an engineer,” “Draw an entrepreneur,” “Draw a scientist.” In these workshops, participants draw pictures, which children love to do. In the processes of visualization, we see how children situate themselves among the artifacts of their work. Some children do not situate themselves in their drawings. In engineering, different visualizations—3D prototypes, drawings, graphs, and so on—are incredibly powerful. In the design process visualizations can be used to persuade other people that what we are doing is appropriate, and we can use them to gain support for how we want the project to move forward. We can think about these same qualities and aims of visualization in terms of children, too. The visualizations can be ambiguous, with the result that there is space for us to change and maneuver within the design. Often designs explain a lot more than we realize that we are revealing. Finally, some of the visualization through art scholarship talks about the ways in which we actually can capture future

orientation. Because we can question the process by which people imagine their future—not just children—but how we all imagine our own futures as well. Pulling all this together, our research questions were: (1) How do young children design their careers

discursively and materially through visualization? and (2) How do children situate themselves in their communities in the future?

In terms of our participants and procedures, we conducted focus groups with 31 children in kindergarten through 4th grade who either participated in YWCA after school programs in schools that had free lunches or who were recruited through an appeal by the Lafayette mayor over television, radio, ads, social media, and a news conference. The groups were almost evenly split between boys and girls and the mixed or same-gender focus groups ranged from four to eight children of approximately the same age. Besides our recorded conversations with these children about their future careers and the future of Lafayette, we also collected their drawings of themselves in their aspirational careers and we videotaped the process by which they drew themselves in their work contexts. Our final form of data was a set of reflections and observations recorded online by our dozen (hourly) graduate research assistants.

To collect our data from the children, we conducted two main activities: draw your career, and envision the future of Lafayette. These corresponded with our research questions and with contest goals. For the first activity, as they were drawing, we asked them questions like “what do people in this job actually do?” and “what makes you think you would be good at this job?” We used the word “job” because we informally tried out questions on a couple of preschoolers and found that they could orient to “job” more easily than “work” or “career.” For the second activity, we asked questions like “How do you think Lafayette will be different in the future?” and “What will people need to be happy and successful in our town in the future?” We videotaped, transcribed, double-checked for accuracy, and analyzed them thematically to look at what was said and depicted as well as how—the discourses and the visualizations—and for future orientations.

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As we were looking for future orientations, we used an imaginary but colorful map that had roads, supermarkets, a courthouse, a university, and other features. We asked them about places that they enjoyed and the children often interacted with the map as if it was Lafayette by pointing out where they thought their grandparents lived or where their home might be. Following Carbelli and Lyon's study, we were trying to help them situate themselves into a spatio-temporal context to understand how they understood the future. We wanted to know: how far in the future did the children project themselves? For example, when we said, "What would you like to do when you grow up?" and followed up by asking them, "How old are you in this scenario? What do you basically mean by 'growing up'?", some of the children thought "grown up" meant high school or age 18. That was their future. It was a little bit different from what we had anticipated. We were intrigued by what temporal shapes they were using. In some cases, time was linear, in other cases time was organized by educational markers jumping from kindergarten to college with this vast "empty" space inbetween. We wanted to examine the resources that they and others might have in terms of how they might actually mobilize this future and how this future "counted" or had value for them.

Let me just talk about one girl, "Camila" (pseudonym) who was just starting first grade and who expressed her desire to be a veterinarian. And not only did she want to be a veterinarian, but she experimented on their dog at home. Their dog had ear problems. "Very sensitive ears" was the way she phrased it. So she gave the dog medicine, watched the dog for side effects, took her dog to the campus veterinary clinic, and attended to what the staff told her and her parents. She said that she needed to obtain a college education and she had scoped out the campus in town. She knew that she needed good grades and that college and veterinary school would be expensive. However, her mother works for the university and Camila knew that she

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could receive reduced in-state tuition. At the time of our focus group, Camila had just begun first grade meaning that she was around 5 or 6 years of age.

As she talked about her future career, we watched as Camila drew herself in her future. She began by drawing a white lab coat in the center of the page. The lab coat is an iconic symbol of health care professionals. People respond to the lab coat and the credibility and training signified by this material artifact. After drawing the coat she inserted herself into the picture and added some medical equipment.

Although I have only talked about Camila, the observations and themes that emerged were similar across our interviews, acknowledging that some children's reports about their future jobs and careers were more or less detailed. For our first research question and not surprisingly, we found that there were intersecting relationships, with different people who informed the kinds of jobs and careers in which the children expressed interest. The children took great care to draw out the materialities³⁹ in their future: they knew what the sites would look like (e.g., veterinary clinic and the examination room with shelves and drawers for equipment storage), what their bodies would look like and how they would be dressed. (e.g., smiling face, "lab coat"), they were acquainted with the artifacts of their work (e.g., keys, shots, medicines, name tags, buttons to open and close the coat depending on the medical procedures or other activities). We also found that some of the children talked about, as Camila did, taking care of pets and people because they wanted to help people.

They learned about these materialities and how to express their interests through their immediate social networks—this is no big surprise because other research has shown that family and others who are close by—parents, neighbors, grandparents, siblings, professionals and other individuals who are employed and/or involved in volunteer work—are important sources of information.⁴⁰ The children oriented toward the work tasks for very specific reasons and

for the encouragement and access to work that they received from others. For instance, Camila enjoyed taking care of her dog. She knew that her dog's ear infections were painful and the medicine that she dispensed helps her dog feel better. She has engaged in the work itself and in the objects needed to do the work (i.e., access and materialities) thus developing her self-efficacy beliefs that she could actually do this work.⁴¹ Her mother has had conversations with her about what she would need to do to be accepted into veterinarian school and to finance her schooling. For Camila, who is approximately 5 or 6 years old, this career is detailed, specific, and possible, depending on grades and test scores.

So what was not in the transcripts, visualizations, or videorecordings with regard to our first research question? As I mentioned before, we also collected data from the graduate research assistants (RAs) whom we hired on an hourly basis to help us set up and gather data. Our RAs wrote reflections within 24 hours of data collection. We had asked them to jot down things that surprised them, things that they observed, and things that we could do better the next time we ran focus groups. They remarked that they were impressed with how thoughtful the children were in reasoning through what, where, how, and why they would pursue certain careers. One girl had a business plan including location of her store; a kindergartener told a RA that he wanted to be a doctor because he could help others and he understood the patient experience because of his own disease and chronic pain.

Regarding our second research question about envisioning the future, specifically the future of Lafayette, we asked children where they liked to go in town. We used what looked like a Lego map—child-like and colorful. When we tried out our questions about the future informally with a three-year-old and a five-year-old, the children really needed something visual with which they could identify. They situated themselves in the map. They

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would often look at the map and say, "Oh, well I live way up here." Or: "Yeah, my grandmother lives over here." Or "I've been to that zoo." They loved the zoo and the prairie dogs whose heads pop up in glass domes.

As we asked questions, we realized that many responses did not sound very exciting but the point was that many of the children, especially the young kids, envisioned a future in Lafayette—their future—as being pretty much the same as it already was. I mean, they might have been older and they anticipated that Lafayette aged and changed with them, but there was nothing significantly different. There would be more cars, more roads, more buildings, more houses, more to do in the water park, more people, and more graveyards. The children are very logical, right? If there were more people, then certainly there would have to be more graveyards!

Likewise, they could envision themselves doing things in the future, but not necessarily doing things for Lafayette, or making big changes. Even when an older group of boys talked about flying toilets or 3D flying balls, their talk was reminiscent of contemporary popular media—Harry Potter, Star Wars, sci-fi, animations—and provoked much enjoyment and enthusiasm among focus group members.

As the moderator, Steve, tried to rein them in and focus their attention on the questions, Steve said, "Who's making this stuff?" to which the boys responded that it would be scientists, smart people, and definitely not them. They were not the people who were creating the future. Not a single one of them was the person creating the future. As I have already said, their responses did not indicate huge changes from the world they already knew. They incorporated very realistic details. Some older children described elements that were consistent with future imagery that was already in contemporary popular culture. For all, their futures included their family and their friends. They envisioned very similar social spaces to what they

currently enjoyed. They did not see themselves as the generators of a future design, the agents of their future world. They did not talk about trying to solve social problems, but they were very much aware of environmental and other problems because of their school system and because some watched the news with their grandmothers before busses picked them up for school.

So what was the big picture that emerged from our data? The children represented themselves in careers that already were available and about which they learned through a variety of different sources including human and non-human agents or materialities. They relied on their immediate social networks. They saw themselves in future careers but they did not see themselves as agents of the future itself. They were consumers of others' creativities and entrepreneurial activities—the others who were smart people who could develop things like the 3D balls and flying cars and toilets. But they were not the makers of these futures.

The implications of this research project seem clear. Children need sustained attention and direct contact with the work itself, access to the work itself, the doing, the being able to situate themselves in that work on an everyday basis. That is the part that is crucial—not the “take your kid to work day” or singular “career day” or “career fair” efforts.

Expanding notions of career and work have to start very early, before or around the age of three⁴² and need to combine the cultivation and natural progression philosophies so that children's possibilities are nurtured, including those for which they might have expressed little interest. By the time they progress past kindergarten and first grade, they already have limited or circumscribed the kinds of things that they are thinking about doing.

Shaping a resilient future means that human resilience processes can assist individuals, families, and communities in supporting children, youth,

and adults in constituting careers. By resilience I mean both adaptation and transformation as people live through and thrive after disruptions, loss, trauma, hardships, and career barriers.⁴³ Theoretically and pragmatically, there seem to be five main communicative processes that also neatly dovetail into very concrete strategies for enactment. First, we can interact to help ourselves and others in craft-

ing new normalcies with the children, that is, in talking, interacting, and establishing routines and rituals so that ways that the careers to which they

might aspire (or had not thought about) would seem to be normal things for them to do. Summer camps and after school activities geared toward developing or nurturing particular interests would fit in this resilience process. Adults might plan birthday trips as my parents did around my 16th birthday when I said that I wanted to visit an archaeological site. This birthday events were rituals for my siblings and myself. I still find that I like to dig around in people's lives but I do that with my research into their talk and materialities.

Second, foregrounding what they could do that might be age-appropriate and encouraging produc-

tive action shows children that there may be obstacles, but that they can uncover different ways to accomplish goals. When children say they cannot be the ones to create the future, then adults can legitimize those feel-

ings (who of us ever feels smart enough to take on the future!), while backgrounding unproductive actions as thoughts we cannot do these things so that they as individuals and as community members could move forward with support for themselves and others.

Third, by affirming their identity anchors they can develop a sense of who they are in their careers and communities as well as the self-efficacy beliefs that enable them to pursue work. Fourth, building and using communication networks facilitates learning new information and connecting with strong ties. When the children have difficulties, just

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as business owners have difficulties during hurricanes and other disasters, they do not form new networks; what they do is to revert to those that are known to them already and where that are mutually supportive.⁴⁴ Likewise, the children need to develop, grow, and maintain networks—we can mentor and model these communicative actions. Fifth and finally, we could encourage and support them in thinking past the obvious. We could demonstrate and/or praise them when they show how they might engage in different kinds of thinking that they had not necessarily considered to be possible. I believe these resilience processes underlie design. It is easy to become discouraged when one has to backtrack and redo specifications, and when the prototypes do not seem to be as viable, feasible, and desirable as one would wish. But design and resilience are key to children's fulfillment of their career aspirations and to their agency in their community's future.

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Epilogue

Our start-to-finish design process began in mid-to late-August and concluded at the end of October to make the early November 1995 ABC contest deadline. The two months were hectic and exhilarating. As we waited in suspended hope, we found out that our project was not advanced into the next round of competition. However, the plans for developing talent and new infrastructures for the future of Lafayette continue.

Once again I would like to express my deep appreciation for the invitation to present the 2016 B. Aubrey Fisher Memorial Lecture.

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B. Aubrey Fisher

B. Aubrey Fisher served as a faculty member in the Department of Communication at the University of Utah from 1971 to 1986. He began his professional career as a high school teacher and radio announcer in South Dakota. After receiving his Masters and Ph.D. degrees from the University of Minnesota, he spent four years on the faculty at the University of Missouri.

Professor Fisher was a prominent scholar in interpersonal communication and communication theory. His published work includes three books and more than 35 articles and book chapters. He was considered one of the most notable and influential communication scholars of his time. He held numerous offices in professional organizations, including president of the Western Speech Communication Association, president of the International Communication Association, and editor of the *Western Speech Communication Journal*.

The B. Aubrey Fisher Memorial Lecture was established by the Department of Communication in 1986 to recognize Professor Fisher's outstanding achievements and to provide a forum for presenting original research and theory in communication.

Patrice M. Buzzanell

Patrice Buzzanell is a Distinguished Professor of Communication in the Brian Lamb School of Communication and in the School of Engineering Education by courtesy at Purdue University. She serves as the Chair and Director of the Susan Bulkeley Butler Center for Leadership Excellence. Dr. Buzzanell is also editor or co-editor of four books: *Stretching Boundaries* (2016), *Distinctive Qualities in Communication* (2010), *Gender in Applied Communication Contexts* (2004), and *Rethinking Organizational and Managerial Communication from Feminist Perspectives* (2000). She has authored more than 170 articles and chapters plus numerous essays and proceedings in engineering education and other disciplines. She has served on 24 editorial boards and has edited *Management Communication Quarterly* and other journals as associate or special issues editor.

Fellow of the International Communication Association (ICA), she has served as ICA President as well as President of the Council of Communication Associations (CCA) and the Organization for the Study of Communication, Language and Gender (OSCLG). She was the 2014 Velux Fondens Faculty Research Fellow at Copenhagen Business School. In 2015, she was awarded the Provost Outstanding Mentor Award from Purdue and became an Endowed Visiting Professor at Shanghai Jiao Tong University's School of Media and Design. She received the 2016 B. Aubrey Fisher Mentorship Award from ICA and the Distinguished Scholar Award from the National Communication Association (NCA). Her National Science Foundation funded projects involve construct development and validation of engineering ethics and team ethical climate scales as well as the everyday constitution of ethics in design thinking and engineering design teams. Her EPICS engineering design teams have focused on women/girls in technology and engineering, education about nanotechnology, recycling and environmental issues, and sustainable water-energy-sanitation-education collaborations with rural villages in Ghana.

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