Findings From a Summative Study of the Sciencenter's *Tech City* Exhibition

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HIGHLIGHTS

Strengths

- Perhaps the greatest strength of the *Tech City* exhibition is that it provided visitors with multiple, open-ended opportunities to experience the engineering process.

- Visitors we observed were spending significant amounts of time at the exhibition, ranging from 9 minutes, 33 seconds to almost 49 minutes. And, visitors kept coming back to *Tech City*: they would leave the exhibition to see other parts of the museum, then return to play in *Tech City*. We also saw a family who returned to *Tech City* the following *day* of our study.

- Visitors were coming away from the exhibition with a general idea and experience of the engineering process that they could articulate to us.

- We observed multiple instances of families collaborating at specific exhibits and/or individual family members going their own way and coming back together.

- Through their experiences at the exhibition, and through the diverse engineer role models highlighted throughout the exhibition, visitors got the sense that anyone can be an engineer. Visitors noticed and appreciated the inclusion of women and minorities.

- An array of rich educational activities developed for school groups and the public enhance and enrich visitors' experiences and understanding of engineering.

- The Sciencenter is successfully marketing *Tech City*, which will tour through ASTC, providing a hands-on engineering exhibition for small science museums.

- Although increasing staff capacity was not a specific goal of the project, working on the *Tech City* exhibition helped staff hone their skills at developing traveling exhibitions.

- The project involved successful collaborations with several other groups and was developed in a time of significant change and growth at the museum.

Issues

- Four exhibits caused confusion among visitors due to navigational issues; three of the four were computer-based exhibits that could have used more in-depth prototyping and testing that the budget did not allow for.

- Staff encountered difficulty developing a unified cityscape feel. Visitors reported seeing elements of a city but did not experience a cohesive and connected city. Some staff members expressed similar concerns, characterizing the exhibition as more of a "hodgepodge" of exhibits than a unified exhibition.

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Children might want to be an engineer; I think it is a good job and about science.
--Ten-year-old girl

OVERVIEW

The Sciencenter in Ithaca, New York, received funding from the National Science Foundation to construct a traveling exhibition and related programming about engineering. That exhibition, called *Tech City*, began to tour in January 2003. Set within a cityscape, the exhibition focuses on engineering as a "problem-solving process" – on the goals, constraints, methods and tools that engineers use in doing their work. In addition, another goal of the exhibition is to promote engineering as a career among youth, especially girls and minorities. The target audience is children in grades three through eight.

Inverness Research Associates was hired as the external evaluator for the project. Throughout the project, we have conducted formative site visits to look at prototypes and test those prototypes with visitors. In addition, we have reviewed program materials and met with key project staff at key points in the development process. In January 2003, we conducted a brief summative site visit in order to document the nature and quality of visitors' experiences with the exhibition as a whole. This report presents our findings from the two-day site visit in January.

FINDINGS FROM THE SUMMATIVE STUDY

Background on the Study

On January 4-5, 2003, two researchers visited the Sciencenter to conduct a brief summative study on the *Tech City* exhibition. During the course of those two days, we conducted 10 trackings and 25 exit interviews. Our time was limited and thus we did not conduct the number of trackings we normally would have for a fuller summative study. However, our data do indicate some key findings about the successes and limitations of the exhibition, and about the nature and quality of visitors' experiences in the exhibition.

The exhibition consists of the following exhibit components:

Entry – A large false-front cityscape welcomes visitors. Six rotating cubes profile engineers, both as they were in upper elementary school and now as adults. Short quotes illustrate how or why they became engineers. All but one engineer is a women or minority.

Earthquake (2 tables) – A shake table that invites visitors to build and test block structures. Visitors can add "rebar" to their structures for stability.

Catch the Wind – Visitors arrange model buildings and trees in an enclosed wind tunnel and control wind speed. Illuminated helium-filled soap bubbles exactly follow the wind's path and illustrate the design's effect on wind direction.

Model Bridge – One of three inter-related bridge exhibits, visitors create a tabletop 2' long model bridge and test the sag of different strength wooden beams.

Bridge Computer – Visitors weigh themselves and enter their weight in interactive computer software. The software challenges them to design a beam bridge that will support their mass using the least costly combination of beams.

Beam Bridge – A series of three 8' long bridges each built with beams of different height (and stiffness). As visitors walk across the bridge they experience, experiment with and compare sag between the three bridges.

Sound Studio (2 stations) – A computer-based sound studio. Visitors use instruments, noisemakers and voice to record and mix up to three audio tracks. During playback, visitors experiment with special effects and the volume of various tracks.

Tech City Diner (2 stations) – An interactive computer exhibit challenges visitors to create a meal that meets nutritional requirements, sometimes within a certain cost. Users select foods from a menu and the computer calculates their success meeting the goal of nutrition and/or cost.

Separation Station – A series of clear, liquid-filled pipes contain plastic beads of differing color and density. Visitors activate a pump that moves beads through a series of filters. By opening and closing valves and collectors, visitors use different kinds of filters to segregate beads.

Traffic Jam – An interactive computer exhibit meant to simulate traffic engineering. Visitors face a steady flow of computer-generated traffic at two intersections, and can change the timing of the 8 sets of traffic lights to achieve the smoothest flow of traffic. A meter measures driver satisfaction.

Design the Plaza – An interactive computer exhibit encourages users to choose multi-colored plastic tiles in geometric shapes to tile a hypothetical city plaza. Each color tile has a

different shape and cost. A camera photographs users' final design and calculates cost of the plaza.

Dam the Creek (2 copies) – This exhibit consists of giant rectangular troughs with water flowing from one end to the other. Visitors pile up small metal bricks to make a dam.

Ask an Engineer Video – Set in an open seated theater area, this video shows a series of short, fast-moving video segments introducing women and minority engineers who "make the city work." Pre-teen narrators introduce and interview engineers. The video, filmed in high definition TV format (HDTV) with surround sound, runs for approximately seven minutes.

Play Zone – This area had three components: 1) Train – Located in a quiet play area, young visitors use wooden blocks, people, and trains along with two train tracks. 2) Ball Sorter – A sorting activity built to compliment the Separation Station exhibit, early elementary children place different size balls in opening on the top of a clear box. Based on size balls segregate in hoppers at the bottom of the box. 3) Three benches and a carpet.

Lampposts and Engineering Banners - Lampposts with banners provide an introduction to the engineering process and examples of six different real-life engineering challenges.

Strengths of the Exhibition

Time Spent in the Exhibition/Navigational Flow

Visitors we observed were spending quite a bit of time at the exhibition: our tracking ranged from 9 minutes, 33 seconds to almost 49 minutes. In several cases, visitors stayed so long we had to interrupt their visits before they were finished in order to interview them. Although there were no other exhibits on the same floor as *Tech City* (and therefore no adjacent competition for visitors' attention), we want to note that visitors were, indeed, physically and mentally engaged with the exhibits.

In addition, visitors used most of the exhibits when the exhibition was busy. We did not see visitors ignoring or avoiding less popular exhibits. When it was busy, visitors stayed in the exhibition exploring all of the exhibits, sometimes while waiting to use the more popular components. Perhaps most importantly, we saw visitors coming back; that is, they would leave the *Tech City* exhibition to see other parts of the museum, then come back later to explore *Tech City* again. In fact, one family who we observed on the Saturday of our visit spent a full afternoon using the *Tech City* exhibition. They returned on Sunday with their grandmother.

Moreover, the exhibition itself and the exhibits within it presented a very family-friendly environment. We observed multiple instances of families collaborating at specific exhibits and/or individual family members going their own way and coming back together. Designers clearly worked hard at making the exhibits multi-user and multi-modal, and the resulting exhibits are accessible to a wide range of visitors. In addition, designers also included an area designed for younger children, which visitors used and seemed to appreciate. Parents and young children spent long periods of quiet play at the Play Zone with Trains and Ball Sorter in one carpeted area.

Giving Visitors Multiple Opportunities to Experience the Engineering Process

Perhaps the greatest strength of the exhibition is that it provided visitors with multiple opportunities to directly experience the engineering process. Several of the exhibits are quite open-ended and have *engineering as a process* inherent in their main activity. That is, with these exhibits, visitors did not have to read a label or be told about engineering but instead had the experience of *doing* engineering through the activities. The exhibits that exemplify this best are the Dams, Separation Station, Earthquake, and Computer Bridge Building. Not surprisingly, when we asked visitors to choose their favorite exhibits, they mentioned these exhibits most frequently.

One of the best examples of visitors experiencing engineering is the dam exhibit – one of the most popular exhibits, and most exemplary of the engineering process. This exhibit (of which there are two copies) consists of giant rectangular troughs with water flowing from one end to the other. Visitors pile up small metal bricks to make a dam. The goal is to use the least number of metal bricks to make the best possible dam. Visitors we observed were going through the engineering process here – identifying a need, coming up with a solution,

trying it, revising as necessary, and checking it again. People spent a lot of time at the exhibit experimenting with different designs to hold the water back.

This exhibit definitely made an impression on visitors and helped cement the theme of the exhibition and concepts from the exhibition in visitors' minds. Kids we interviewed about engineering in general often gave examples of what engineers do and how they do it based on their experiences at the dam exhibit. As several visitors said when we asked what engineers do and what the exhibition was about:

Make things that are not wobbly – save money and bricks. -Eight-year-old girl[1]

Engineering and making things stable. -Nine-year-old girl

Finding ways to fix water. -Eight-year-old girl

It's fun to play with water, use your imagination… there are so many possibilities!
-Eleven-year-old boy

You have to think about holes, the spaces the water was running in, and not enough blocks… try to find a way to fill it so you don't use as many blocks.
-Two seven-year-old boys

Much of the time, when we asked visitors what the exhibition was about, children responded that they were building things in the exhibition more often than they said they were engineering. Thus, it appears many kids see engineering as building. The following quotes illustrate:

I thought it was about building, how things work – not about engineering.
-Eleven-year-old boy

[Engineers] build things to make life easier.

[Engineers are] kind of like a builder – they would design things and then the builder builds it. -Eleven-year-old girl

However, visitors clearly were coming away from the exhibition with the general idea of the engineering process, as the following quotes illustrate:

[Engineering is] about science and figuring stuff out.

Engineers tell you what to do and how to do it.

[The exhibits are all about] learning how to solve problems.

[This is about] different ways to solve problems.

[1] Throughout this report, when we quote a visitor, we include their demographic information when available.

[An engineer] designs, builds, tests, refines – civil and structural.

[It's about] problem solving – an opportunity to figure things out, how they work.

Communicating the Themes of Constraints/Tools

One of the exhibit designers' key goals was to help children recognize that when engineers go through the engineering process, there are costs and constraints to consider. An example is the dam exhibit; a visitor has only so many blocks to work with.

We observed visitors considering constraints because they were inherent in the design process in the activity. However, the theme of constraints did not readily emerge in our conversations with visitors.

It is not clear if children learned about cost constraints from the exhibition or figured it out because we asked about it in pointed questions. It is important to note that some kids clearly did understand this concept as the following quotes illustrate:

[Engineers have to think about the] kind of material, safety, making it perfect, money to buy material. -Nine-year-old girl

[Engineers have to make things] sturdy, weatherproof; [they have to think about the] kind of material, length, how much money it costs.

[Engineers have to] build things hard and thick and [make them] work good, pay only what you can. -Twelve-year-old female

Another sub-theme that designers wanted to communicate involves the types of tools engineers use in their work. Staff deliberately paired a computer model of engineering with a construction model around the same type of physical activity (such as bridge building). The intention was to help visitors understand that engineers use computer simulations to design and test ideas before building.

The visitors' perceptions about the degree to which and the ways in which engineers use tools such as computers in their work was difficult to ascertain. If exhibit designers wanted children to walk away having learned that engineers use computers to design and test ideas, this was probably not an outcome. However, visitors clearly had the experience of using computers to design and test during their visit to the exhibition, even if they were not articulate about it afterwards.

Promoting Engineering as a Field for Women/Minorities

Exhibition designers made a concerted effort to include minorities and women in designing the exhibition, as well as in displaying them in engineering careers in key pieces of the exhibition. Most visitors we asked about who could be an engineer clearly felt that women could be engineers if they wanted to. Whether this stems from the exhibition or current

society, we do not know. However, what we do know is that visitors definitely saw and paid attention to the video and entry cubes highlighting women and minorities in engineering. In addition, as we said earlier, visitors of all kinds had the experience of "doing engineering" through their use of the exhibits.

The video and entry cubes were positive aspects of the exhibition. These both have a dynamic feeling: the pictures and people are attractive in their confidence and energy for the field of engineering, and they clearly captured the visitors' interest.

The video portrays engineering as active, creative and multi-faceted. In addition, the quality of compressed segments allows people to watch one portion, go away and come back. This is critical, as that is how we saw several visitors engage with the exhibition as a whole. From the early prototypes to the final product, Insights International, the video producers were receptive to evaluation and put a great deal of effort into making these segments more inclusive. The Sciencenter project manager also worked hard to facilitate a close relationship with the video producers.

Most visitors and minority community members we interviewed about the exhibition said that it was successful in including minorities. The museum sought out leaders in the minority community and involved them in the design process, which was valuable. In particular, one mixed race couple we interviewed noted the importance of providing minority engineer role models:

> *A lot of kids don't have aunts and uncles and grandfathers who are engineers, so it was good the exhibit showed minorities in the engineering field.*

They felt the exhibition was quite good:

> *This exhibition is not preachy; anyone can be an engineer, even if it's not your job. It makes science fun for kids, which helps them think about science in a positive way.*

The couple did note that the exhibition could have gone a step farther to address engineering issues in minority communities.

> *This exhibition's representation of minorities and women is a good start. It shows women and minorities in the field, which helps break down stereotypes. The next step would be putting problems that face minority communities in front of visitors. Examples include public transportation, infrastructure, housing, water treatment, medical incinerators – which are often located in minority communities because they lack the political power to influence where these facilities are placed. The question is 'How is this problem relevant to my community?' This is the biggest selling point of the field. A minority kid might want to become an engineer to build a skyscraper, but that doesn't appeal to someone who wants to do a career to serve his or her community.*

Similarly, an African American woman commented:

This (exhibition) portrays women and minorities well. You could have more relevant examples like public transportation and toxic waste coming through our neighborhood.

Developing Staff Capacity

Although increasing staff capacity was not a specific goal of the project, developing the *Tech City* exhibition helped Sciencenter staff develop their skills in developing traveling exhibitions. They learned more about how to design, prototype, and build good exhibits for the small-museum community, and about how to incorporate significant design and graphics. These skills are being demonstrated in two exhibitions funded by NSF after *Tech City*: *It's a Nano World* and the TEAMS II exhibition *Cool Moves: The Artistry of Motion.*

Collaborating

In designing and building *Tech City*, Sciencenter staff collaborated with a large number of other partners and sub-contractors, including several key volunteer exhibit developers who made tremendous contributions, The Exhibition Alliance (formerly Gallery Association of New York State) who were the designers, Insights International who produced the video, the Cornell Engineering School, and one corporate partner.

Staff met the challenge of effectively managing the many components of the grant. For example, in order to maintain focus, meet budget and timeline, and conduct effective prototyping, the staff divided exhibit development into several production units, each with four exhibits.

The staff also met the challenge of developing exhibits with extensive volunteer efforts, and tending to sensitive political issues around critiquing or even removing volunteer-built exhibits that did not work well. As a result of taking on this challenge, these volunteers allowed the Sciencenter to add much to the exhibition that couldn't have been afforded otherwise.

Developing a Major Exhibition Project in the Context of an Expanding Museum

The Sciencenter developed *Tech City* during a time of growth and expansion at the museum. The museum recently completed a major renovation and expansion project; thus, while staff members were developing this exhibition as well as others, they were doing so as the building was under construction, with all the accompanying disruptions and very limited workspace, additional job responsibilities, and some staff turnover. Construction delays limited staff, who were only able to begin to set up *Tech City* in the museum a few weeks before our site visit. Partly because of this tight timeframe, additional refinements were made after our site visit – especially to the Catch the Wind exhibit.

We have observed that other museums developing exhibits during museum expansion experience significant problems that manifest in the day-to-day management of exhibit projects, and in turn, the final product. In this case, museum leaders were cognizant of the difficulty of developing a major exhibition while going through this transition, and rose to

the challenge of completing the exhibition and getting it on the floor in as timely a way as possible.

The decision to hire an exhibition project and budget manager was a major component of *Tech City*'s success. The Director of Exhibits made a major contribution as she managed multiple projects, budgets and job responsibilities in a challenging environment.

Developing Related Education Programs

Community outreach through educational programming was a major goal of the *Tech City* project. These educational programs consisted of a community event guide and video, school group pre- and post-visit materials, museum hands-on programs and at-home family activities. The programs staff conducted intentional front-end research to guide design of activities and events.

Through the *Tech City* grant, museum staff members were able to expand on and refine existing community programming, specifically an "Engineering Day" event. Programming staff, in partnership with Insights International, produced a video which documents a community "Engineering Day" event for museums who lease *Tech City*. The engineers that are highlighted in the video include women and minorities, who speak about their work, and work with the event participants.

In addition, the grant allowed staff to develop and administer surveys and pre-tests with visitors, which they used to test and refine ideas for programming. Education staff members were also careful to conduct front-end research, and enlisted minority community leaders as advisors.

School pre-visit materials introduce teachers to *Tech City* in advance of a field trip to the museum. The publication provides questions to help students begin thinking about the engineering process they will experience at the exhibition.

Post-visit activities provide children in grades three through eight inquiry-based, student-directed group activities designed to support National Science Education Standards at each grade level. Staff built activities around the themes of inventing, building, design and testing.

Museum hands-on programming consists of 45-minute programs led by museum educators. Programs allow student visitors to design and experiment while working under constraints. Other activities, such as "Beam Me Up" and "Reach for the Sky" provide simple, open-ended and exploratory opportunities for visitors to solve engineering problems on the museum floor – these activities enhance the concepts and experiences in the exhibits. And, an at-home family guide offers families activities to do following a visit to *Tech City*.

In keeping with the grant, the programs staff made a deliberate effort to create materials targeting girls and underrepresented audiences. The Sciencenter staff chose the Montshire Museum in Norwich, Vermont as the site to prototype *Tech City* education programs,

reportedly because of its similar size. The Sciencenter staff noted that Montshire did not actively target underrepresented audiences to attend their community event, largely because Montshire is located in an area of the country that does not have a large community of this demographic group.

Because Montshire had low minority attendance when they prototyped *Tech City* programs, it is not clear whether these activities appeal to underrepresented audiences in particular. A better choice for prototyping future family programs developed for a minority audience would be a museum that serves that audience; also, staff could test activities with a program that serves minority audiences.

Marketing

A final component to the overall *Tech City* project is marketing. The museum created a web site to provide information on the project as well as marketing and press materials. They also leased the exhibition through the Association of Science-Technology Centers (ASTC). There are currently eight museums interested in renting *Tech City*.

Issues

A few issues emerged in our summative study. These issues included some confusion and frustration at several of the computer exhibits; the lack of a unified, cohesive look and feel for the exhibition as a whole; and continued investment in ideas that perhaps should have been discarded or saved for another project.

Confusion at Computer-based Exhibits

Three of the four exhibits that confused or frustrated visitors were computer-based. Staff perhaps under-estimated the challenge of the extra time and budget needed to test and revise computer-based exhibits.

While the exhibits went through multiple tests in multiple rounds of prototyping, they did not receive the level of audience testing that commercial software typically receives. The direct and indirect costs of designing computer-based exhibits are generally higher than non-computer interactive exhibits; in the case of *Tech City*, it appears there was not enough resources budgeted for these efforts.

The three computer-based exhibits problematic for visitors were Design the Plaza, Traffic Jam and the *Tech City* Diner. These exhibits were not as successful as other exhibits in the exhibition. Several visitors mentioned them among their "least favorites." For the most part, these exhibits had navigational issues that prevented visitors from having successful experiences.

Tiling the Plaza showed significant navigational issues that made it difficult for visitors to reach the engineering concepts. It was not clear to visitors that the camera was an important part of the exhibit. Visitors did not understand that they could take pictures to get the cost of the plaza. Visitor comments about this exhibit included:

I don't know what to do.

It counts the blocks wrong.

Oh... there's a camera.

That one doesn't work. It miscounts tiles and is frustrating

We don't even know what to do.

We want to note that, part way through our site visit, staff found lighting had not been set up properly when they installed this exhibit in the new gallery, just prior to this site visit. They did readjust the lighting while we were there. And Sciencenter staff have told us since our visit that they are working on a "new lighting scheme" which seems to be functioning much more as intended.

There were also navigational issues with the Traffic Jam exhibit. Visitors could not be successful according to the "happy driver gauge" in the exhibit even when they worked at it. There was also no way for visitors to monitor the choices they were making as they went, so they could not compare the changes. This was a missed opportunity as it does provide a good example of an urban engineer to which most visitors can relate. Visitors commented:

I couldn't make my people happy but I don't know why! -11-year-old girl

There's no way to make the drivers happy. -A man and his son

It was frustrating. -14-year-old boy

Traffic Jam was complicated. -Eight-year-old boy

While two visitors rated it as their favorite exhibit, most visitors found the Diner exhibit complicated, difficult and confusing. Visitors complained of too many food choices, too much protein, small hard to read font and difficult challenges. Similar complaints surfaced during two formative evaluation visits.

It seemed unrealistic. -Women in her twenties

It was kind of hard. -Eight-year-old boy

It is too hard to figure out.

A fourth exhibit, Catch the Wind, was problematic for visitors because they did not know what to do or the exhibit simply did not work well. The signage was not clear, and how to control the wind was not evident. We observed some visitors interacting successfully with the exhibit and spending a long time experimenting. However, it seemed to require an

unwarranted effort to figure out how to use the exhibit. Many visitors misused, under-used, or were visibly frustrated by the exhibit.

It doesn't do anything.

There's just bubbles… not that much there [to do]. -10-year-old female

What is this? I mean, what are we supposed to do? My daughter can't get this to work.
-Frustrated man with angry tone.

However, after our visit, staff reported that they completely relabeled the exhibit, enhanced buttons and knobs, and improved the bubble launcher mechanism; they also added a label showing where the bubbles can be adjusted to enter the tunnel.

Developing a Unified Look and Feel

Another key issue staff faced in developing the exhibition came in trying to develop a unified cityscape look and feel for the exhibition in the context of a system that relies heavily on volunteer exhibit developers. Some staff, while pleased with the exhibition, indicated that *Tech City* has less of a unified cityscape feel than what they had hoped to achieve. Rather than an intentional unified design, the combined exhibits seem to represent a compilation of staff and volunteers' interests and styles.

Sciencenter staff reported that the bright colors and variety of styles were intended to connote a city – and that "cities are not unified." Also, they report that early research indicated youth from diverse audiences were attracted to more eclectic colorscapes. The exhibition design concept was developed wholly by the Exhibition Alliance. *Tech City* staff pushed to include more cohesiveness and "urban renewal" throughout development – this effort led to the inclusion of the city-style benches, the lampposts with banners, and the decision to place limits on the color palette and number of fonts used.

The overall city metaphor may have been more apparent to Sciencenter visitors if the entry facade faced the top of the entry staircase.

This is a city, where are the trees. -Women in her forties

This is supposed to be a city. Oh, I didn't get that. -Man in his twenties

It said 'Tech City' on the sign, but it really doesn't seem like a city.
-12-year-old girl

Letting Bad Ideas Go

During formative evaluation, staff continued developing exhibits that visitors clearly said they did not like, that did not work, were confusing or that were not educationally sound. The *Tech City* Diner and Catch the Wind are both exhibits included in the final exhibition

that received the same pointed criticism by visitors during the summative study that they received as stage one prototypes.

The time, effort and budget dedicated to developing exhibits that staff eventually cut, or that failed to improve, might have been better-spent refining exhibits that showed more promise in the prototyping stage of development. However, to the Tech City staff's credit, they did let go of two exhibits ("Light the Tree House" and "Refrigeration") based on formative evaluation; also, the video was dramatically re-worked given formative evaluative comments.

During formative evaluation, staff expressed reluctance to let go of ideas that were not working because there were not other new ideas waiting in the wings. The Sciencenter did make a deliberate effort to include diverse community members, engineers and exhibit developers in the October 1998 kick off meeting. This meeting was the starting point of many of the exhibits that appeared in the final *Tech City* exhibition. Repeating a process similar to that October 1998 brainstorming session may have helped generate new exhibit ideas, when original ideas proved unpopular with visitors, or when they proved to be ideas that staff were not able to make work well.

SUMMARY

Tech City is an ambitious exhibition that gives visitors the opportunity to experience the engineering process. *Tech City* draws visitors in, engages them and holds their interest for long periods. It provides visitors with enriching, open-ended experiences about designing solutions to problems, testing those solutions and refining them.

The exhibition also demonstrates that anyone can be an engineer through both the activities and the diverse role models featured in the exhibition. The related education programs support and enhance the ideas and experiences presented in the exhibition. In addition, the exhibition is meeting a need in the field for smaller-sized exhibitions at affordable prices.