

RACHEL HELLENGA

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PROFESSIONAL PROFILE

Twenty-year career leading high-performing teams to design world-class visitor experiences which evoke wonder, spark curiosity, inspire investigation, and bring people together in memorable settings.

KEY SKILLS

Directing Creative Teams	Inclusive Design	Museum Operations	Budgets & Schedules
Master Plans & Capital Campaigns	Branding & Identity	Board & Donor Relations	Contract Negotiation
Exhibit Planning & Design	Exhibit Evaluation	Partnerships & Grants	Vendor Oversight
Technology & Interaction Design	Family Learning	Writing & Public Speaking	Staff Supervision

EXPERIENCE

HELLENGA PROJECTS – Elmhurst, IL

January 2012 to present

Consultant (2012 to present)

Perform strategic planning and oversight for clients pursuing major exhibition initiatives and capital projects. Manage in-house teams and external design resources to deliver compelling learning experiences which engage audiences, attract funding, drive attendance, and deepen community involvement. Identify and promote best practices in informal learning on behalf of museum associations. Selected clients include the following:

GREAT LAKES SCIENCE CENTER – Cleveland, OH

Wrote experience description for successful \$1 million NASA grant. Supervised client's staff and external software developers, evaluators, and advisers to implement *Mission to STEM*. Tablets guide visitors through space missions and bring NASA artifacts to life with augmented and virtual reality. Embedding artifacts in mission stories provides context, ensures meaningful interaction, and deepens visitor engagement.

THE WORKS – Bloomington, MN

Produced report to support museum's strategic plan. Outlined key trends in engineering, open-source technology, museum visitor demographics, and inclusion of children with autism. Supervised client's staff in producing *Sensor Zone*, with an Arduino-controlled maze, high-tech clubhouse, and other exhibit stations.

THE DISCOVERY MUSEUM – Acton, MA

Translated master plan into measurable goals and visitor outcomes for the new facility opening March 2018. Won four grants totaling \$500K from the Institute for Museum and Library Services. Researched the cognitive and emotional benefits of time spent in nature to aid planning process for outdoor exhibit. Developed comprehensive summary of inclusive design strategies to guide design of new facility and exhibits.

CENTER FOR THE ADVANCEMENT OF INFORMAL SCIENCE EDUCATION – Washington, D.C.

Served as writer, editor, and producer for *The Principal Investigator's Guide: Managing Evaluation in Informal STEM Education*. Gathered and presented the collective wisdom of senior museum professionals.

ASSOCIATION OF CHILDREN'S MUSEUMS – Washington, D.C.

Panelist for *Advancing Accessibility in Museums*. Selected children's museums to receive awards for notable inclusion practices in museum programs, exhibitions, and facilities.

Maker & Inclusion Advocate (2013 to present)

Invented and patented flexible circuit boards and LEDs which snap under LEGO bricks. Regularly present gender-friendly and disability-friendly DIY electronics projects at STEM fairs, Maker Faires, LEGO conventions, and professional conferences. Apply storytelling power of LEGO to make circuits more appealing and less intimidating.

B. R. RYALL YMCA – Glen Ellyn, IL

Teamed up with the YMCA to offer summer camps at the College of DuPage. Beta tested flexible circuit components that snap under LEGO. Participants transform LEGO base plates into circuit boards.

WORKSHOP 88 – Glen Ellyn, IL

Procured funding from Maker Ed Foundation to produce *Teknistas* after school program and summer camp introducing girls to DIY electronics. Secured venues, recruited participants, and beta tested curriculum featuring interactive LEGO displays, glowing gummy bears, light-up duct tape roses, and Teddy bear t-shirts.

ILLINOIS HOLOCAUST MUSEUM & EDUCATION CENTER – Skokie, IL

June 2010 to December 2011

Director of Program Services

Reported to president and CEO as part of the senior management team. Supervised 15 full-time and part-time staff. Oversaw exhibitions, collections, education, and marketing departments and presented metrics to the board of directors. Gained experience in branding, marketing, public relations, and advertising and oversaw implementation of the organization’s first museum-wide branding campaign encompassing billboard design, bus placards, and print and online media. Served as liaison to Exhibit and Programs Committee of the board. Led the \$1 million *Harvey L. Miller Family Make a Difference!* anti-bullying initiative and successfully implemented an exhibition, outreach programs, and a symposium for Chicago-area high school principals.

MUSEUM OF SCIENCE AND INDUSTRY – Chicago, IL

August 2006 to June 2010

Project Director (2007 to 2010)

Reported to VP, Collections & Exhibitions. Directed creative efforts of seven staff and 25+ vendors to renovate the west wing and introduce *Science Storms*, a 26,000 sq. ft. permanent exhibition on physics and chemistry featuring a three-story tornado, live fire, 30-foot rainbow, 200 artifacts, and 50 interactive stations. Delivered world-class visitor experience which was named one of the *20 Most Influential Exhibitions This Century* by the Society for Experiential and Graphic Design (2018). *Science Storms* received the industry’s top design awards: AAM award for Overall Excellence in Exhibitions (2011); ASTC Roy Shafer Leading Edge Award for Visitor Experience (2011); and Themed Entertainment Association’s Thea Award for Outstanding Achievement (2010).

Senior Project Manager (2006 to 2007)

Performed project management through schematic design. Established the \$30 million budget projection, developed the four-year schedule, produced RFPs and contracts, and secured landmark approval for building modifications. Initiated museum’s first podcast series and launched a behind-the-scenes blog.

CHICAGO CHILDREN’S MUSEUM – Chicago, IL

August 2003 to July 2006

Associate Vice President, Partnership of Playful Learners – (2004 to 2006)

Submitted successful \$1.7 million proposal to the NSF for the Partnership of Playful Learners, featuring the *Skyline* exhibition, research partnership with Northeastern University, and community partnership with the North Lawndale YMCA. Introduced graphic design approaches which increased family collaboration and conversation. Developed interaction design strategies which increased girls’ participation to match that of the boys. The project was recognized by the AAM award for Special Achievement in Cooperative Learning (2010).

Associate Vice President, Production & New Ventures – (2003 to 2004)

Developed cost projections, cash flow, and schedule for the museum’s \$30 million renovation and expansion. Established contracts for architectural services, exhibit planning, and construction management. Conducted negotiations with Navy Pier for lease agreement and parking concessions. Secured landmark approvals.

THE TECH MUSEUM OF INNOVATION – San Jose, CA

June 1995 to June 2003

Senior Director of Exhibits and Programs (2002-2003) **Director of Exhibits** – (1999-2002)

Reported to VP of Exhibitions. Supervised a team of 13 staff and dozens of vendors in production of exhibitions and public programs. Managed \$2.3 million annual capital and operating budget. Closed out contracts totaling several million dollars after the new facility opened and established standards to streamline future design, fabrication, and installation. Developed a five-year strategic plan leading to over \$4 million in new project funding within three years. Served as liaison to Exhibits and Programs Committee of the Board and as principle investigator for NSF-funded *Exploration* gallery (Earth, Ocean, and Space); NSF-funded *NetPI@net*; and NIH-funded *Genetics: Technology with a Twist*. Introduced falling sand interactive replicated by more than 50 venues.

Exhibit Developer and Project Manager (1995-1999)

Led the development of \$3.5 million *Communications: Global Connections* gallery for The Tech’s new facility opening October 1998. Made successful fundraising presentations to individual and corporate donors.

CHICAGO CHILDREN’S MUSEUM – Chicago, IL

May 1991 to August 1995

Exhibit Developer (1991 to 1995)

Developed the popular *Inventing Lab*, *Waterways*, and *Under Construction* exhibits for CCM’s Navy Pier location. Wrote successful \$240K NSF grant proposal and \$25K AT&T Foundation proposal. Select exhibit experiences were replicated by the Pittsburgh Children’s Museum, the Please Touch Museum, and many others.

EDUCATION

HARVARD UNIVERSITY– Cambridge, MA (1989)

Bachelor of Arts in Psychology (John Harvard Scholarship for high academic distinction)

REGGIO CHILDREN – Reggio, Italy (2005)

Attended study tour of education methods pioneered by pre-school educators in Reggio, Italy

NAPERLAUNCH ACADEMY – Naperville, IL (2018)

Completed small business incubator program for entrepreneurs

LANGUAGES

Italian, French, Spanish

SELECTED PUBLICATIONS

- Hellenga, Rachel. **When Every Visitor is a VIP: The Personalized Museum Visit.** *Dimensions* (American Alliance of Museums journal), 2013
- Hellenga, Rachel, and Cricket Brooks. **Taking the Framework for Excellence in Exhibitions for a Spin at the Pritzker Family Zoo.** *The Exhibitionist* (Association of Science-Technology Centers journal), 2012
- Hellenga, Rachel. **True Stories from Your Peers: The Interplay Between Evaluation and Project Implementation.** *The Principal Investigator's Guide: Managing Evaluation in Informal STEM Education* (Center for the Advancement of Informal Science Education online guide), Washington, DC, 2011
- Hellenga, Rachel. **Bullying Prevention Games at the Illinois Holocaust Museum & Education Center.** *Museums at Play: Games, Interaction, and Learning. Museums, Etc.*, Edinburgh, 2011
- Hellenga, Rachel. **Designing an Exhibit for Research.** *Hand to Hand.* (Association of Children's Museums journal), 2004

SELECTED PRESENTATIONS

- **Tiaras, Tutus, and Technology Education**, Presenter, Seven-Minute Seminars, Harvard University, 2014
- **Making with Whimsy, Beauty, and Purpose** Presenter, Association of Children's Museums Conference, 2013
- **Hack it! The Maker Movement and Museums**, Presenter, Chicago Museum Exhibitors Group meeting, 2013
- **Prototyping 202**, Chair and Presenter, Association of Children's Museums Conference, 2006
- **Expecting the Unexpected: Planning Experiences that Let Visitors Surprise Us**, Chair and Presenter, Association of Science-Technology Centers Conference, 2004
- **Exhibit Graffiti: Interpreting the Urban Landscape**, Facilitator, three-day workshop, ASTC Conference, 2003
- **Getting it Right before the Money Runs Out**, Chair and Presenter, ASTC Conference, 1999
- **Science Museums and Public Internet Access**, Presenter, ASTC Conference, 1996

PATENTS

Kit for electrifying an assembly of bricks in a brick building system, Assignee, Rachel Hellenga



- Patent #US20170189828A (2017)
- Patent #US9782686B2 (2018)

PROFESSIONAL MEMBERSHIPS

Museum Associations: American Association of Museums, Association of Science-Technology Centers

Makerspaces: Pumping Station One, Workshop 88

LEGO Communities: Brickworld, BrickFair

LinkedIn Profile	Digital Portfolio and Media Interviews
	
Linkedin.com/in/rachelhellenga	Hellenga.com