

REMEMBERING KATE GLEASON: INTRODUCING A TWENTIETH-CENTURY BUSINESSWOMAN TO TWENTY-FIRST CENTURY STUDENTS

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REMEMBERING KATE GLEASON: THIS IS WHAT A VISIONARY LOOKS LIKE

Michael J. Brown

In the summer of 2015, full-stack engineer Isis Wenger of the OneLogin Company began a Twitter campaign with the hashtag “#ILookLikeAnEngineer.” Wenger had appeared in a recruiting poster that her company placed in the Bay Area Rapid Transit system. In this advertisement she stands facing the viewer, wearing eyeglasses and a black company t-shirt, beside this text: “My team is great. Everyone is smart, creative, and hilarious—Isis Wenger, Platform Engineer.” The poster generated such a volume of social media commentary about Wenger’s appearance and whether she was a plausible representation of an engineer that she was moved to respond. “Some people think I’m not making ‘the right face,’” Wenger wrote in an online essay (Anchalee par.8). “Others think that this is unbelievable as to what ‘female engineers look like” (Anchalee par.8). Being an engineer, Wenger was keen to remind people that she is, in fact, what an engineer looks like. “The negative opinions about this ad that strangers feel so compelled to share illustrate solid examples of the sexism that plagues tech,” she observed (Anchalee par.6). Rather than accepting Wenger’s standing as an engineer, voices on social media questioned that standing by dissecting her appearance, posture, and expression. Wenger asked:

Do you feel passionately about helping spread awareness and increase tech diversity? Do you not fit the ‘cookie-cutter mold’ of what people believe engineers ‘should look like?’ If you answered yes to any of these questions I invite you to help spread the word and help us redefine ‘what an engineer should look like’. (Anchalee par.10)¹

Women responded to Wenger’s call by posting photos of themselves to the “#ILookLikeAnEngineer” hashtag in what *Goodnet’s* Zohar Friedman called “an awesome display of viral feminism” (par.1).

While the “#ILookLikeAnEngineer” campaign reflects women’s ongoing struggle for visibility and respect in the science, technology, engineering, and math (STEM) professions, in Rochester, NY, and particularly on the campus of the Rochester Institute of Technology (RIT), for more than a century there has been a woman’s face attached to the notion of what an engineer looks like. That woman is Kate Gleason. Born in Rochester in 1865, Gleason became the first woman to enroll in Cornell University’s Sibley College of Engineering and Mechanic Arts. She worked for many years in her family’s business, a machine shop that evolved over the decades into a successful gear-making enterprise that today operates as the Gleason Corporation. In 1914 Kate Gleason became the first woman to join the American Society of Mechanical Engineers.² Gleason’s connection to engineering is honored at RIT, where the Kate Gleason College of Engineering attracts students and faculty from around the world.

While Kate Gleason is best remembered as a path-breaking woman engineer, many of her other activities and achievements have been obscured by this honor. The Gleason Corporation is across the street from the mansion-turned-museum of another local technical and industrial icon: George Eastman, founder of the Eastman Kodak Corporation. Eastman’s cultural, civic, and philanthropic legacies are visible in the city’s landscape, with the University of Rochester’s Eastman School of Music, the Eastman Theater housing the Rochester

¹ Wenger published her essay under the name Isis Anchalee.

² For a helpful overview of Kate Gleason’s life, see Janis F. Gleason.

Philharmonic Orchestra, the Eastman Dental Center providing quality care at an affordable cost, and the George Eastman Museum hosting the largest photographic collection in the world. Eastman is remembered for Kodak cameras and film, but also for more than Kodak—he is regarded as a defining personality for his historical period and as a towering figure in the entire history of the city of Rochester. Kate Gleason’s legacy on the local landscape is muted by comparison. Her revolutionary concrete housing development in the town of East Rochester for workers like those employed by her family, her creation of a golf course and country club near this development, her groundbreaking role as a woman bank president, her efforts to rebuild a French town after the First World War, and her patent-winning trailer-car company lack visibility and, hence, memory in the community.

“Kate Gleason, Engineer” has had staying power, while Kate Gleason, builder, developer, entrepreneur, innovator, banker, philanthropist, and social reformer, have faded by comparison. The idea of “Kate Gleason, Engineer” is not only problematic because it elides her various (and varied) other achievements; it is problematic because her claim to the designation of engineer is perhaps the most ambiguous of those achievements. Gleason, like Eastman, came of age at a time when the professions were taking shape in the United States. The American Society of Mechanical Engineers was founded only in 1880, at a time when many of those working in the field—like Kate Gleason’s father William Gleason—had not only failed to attend engineering schools but lacked much in the way of formal schooling altogether.³ Kate Gleason had taken courses at both Cornell and the Mechanics Institute of Rochester (which became RIT), but she never completed her degree due to the demands of the family’s business. Stories about her as a practicing engineer were sometimes exaggerated or untrue. Henry Ford called the Gleason Works’ gear planer “the most remarkable machine work ever done by a woman,” but Gleason was quick to tell all who would listen that her father and brother had designed that device, not her

³ On the history of the development of mechanical engineering as a profession, see Calvert.

(Gleason 55). In the spring of 1910, Gleason wrote the *New York Times* asking them to correct a piece referring to her as “Feminine Mechanical Genius.” The closest Kate Gleason had come to designing the by-then-famous Gleason bevel gear planer, she wrote, was having family members who did so. “My place in the business is Secretary and Treasurer,” she told the *Times*. “You see I have captured two jobs but neither of them have anything at all to do with designing” (Gleason 55). Kate Gleason was extremely knowledgeable about gears and mechanics, but that knowledge was put to the task of selling such products to Gleason’s customers, rather than working on the products themselves. It was at the task of selling Gleason gears that Kate Gleason achieved success after success, and she, her family, and their company became quite wealthy as a result.

The fall of 2015 marked Kate Gleason’s sesquicentennial. Faculty in the Museum Studies Program at RIT (including the authors of this article, along with Juilee Decker and Rebecca DeRoo) determined in the spring of that year that this important anniversary should not go unnoticed on the campus. We planned to honor Gleason with a mobile exhibit that would appear in several corners of the campus and, ultimately, an exhibition that would include a fixed display in the library. As our planning took shape in the summer of 2015, so did the “#ILookLikeAnEngineer” campaign. That campaign made visible the ongoing struggle of women in engineering for full-fledged professional recognition. As we prepared to honor Kate Gleason, our challenge was to present a woman who was both not entirely and much more than an engineer.

Without diminishing the achievement in engineering for which she is recognized at RIT and was renowned in her lifetime, we wanted to show that Kate Gleason could be understood in new and wider ways. If “Kate Gleason, Engineer” was a misleading and limiting way to characterize her, how might we better capture the breadth of her achievements?

While the local parallel to Kate Gleason during her lifetime was George Eastman, the contemporary parallels to Gleason are figures like

Steve Jobs of Apple, Mark Zuckerberg of Facebook, and Elon Musk of PayPal, Tesla, and SpaceX. Jobs, Zuckerberg, and Musk are known not only for their technical acumen, but also for their ability to imagine products that anticipate people's needs and modes of living. They are known for selling technologies that are both ahead of the market and capable of reshaping markets. Musk, in particular, has wedded his latest business endeavors to larger social concerns. He, Zuckerberg, and Jobs are, in short, polymaths and people of vision. Kate Gleason was such a person, and we concluded that, while the descriptor "engineer" did not capture the extent of her accomplishments and endeavors, the term "visionary" did.

Her vision is what united Kate Gleason's varied interests and activities, including her work in building, banking, engineering, manufacturing and other fields. She had the capacity to see beyond conditions that were in order to glimpse those which might be—in business, in community development, and for women. Kate Gleason, we reckoned, is what a *visionary* looks like.

"Visionary" is an evocative term for Kate Gleason, for it speaks not only to the importance of what one sees but also the importance of how one is seen. Indeed, the politics of representation were at stake for Gleason in her lifetime, just as they are for Wenger and other women in the STEM fields today. Wenger's hashtag campaign was an effort to assert women's agency, their power to represent themselves. Similarly, Kate Gleason worked to determine her own image. "Susan B. Anthony...had impressed one fact upon me while I was growing up," she recalled. "Any advertising is good," Anthony said. "Get praise if possible, blame if you have to. But never stop being talked about" (Gleason 47). This advice suggests what today might be called "personal branding," and Gleason's adherence to it—unsurprising, given her business dealings—indicates her effort to manage her own public presence, modulating it where possible and magnifying it whenever possible. At the heart of such representational agency is the question of whether women are viewed as engineers or whether representations of

engineering construct the field so as to exclude them from view and, thereby, access.

Kate Gleason can serve as a helpful antecedent to those, such as the “#ILookLikeAnEngineer” campaigners, seeking to heighten women’s visibility in STEM professions. At a moment when the likes of Steve Jobs, Elon Musk, Mark Zuckerberg, and other men loom large in the cultural imaginary, Gleason may also serve as a useful antecedent to those asserting women’s role not only in reshaping professions, but in reshaping society. As our exhibition team developed its own representation of Gleason for a college audience, we bore in mind the multiple ways she could be seen—and the many ways in which she could be an empowering example for students.

REMEMBERING KATE GLEASON: CONSTRUCTING THE EXHIBITION AND ENGAGING THE STUDENTS

Tina Olsin Lent

The exhibition, *Kate Gleason Visionary: a tribute on her 150th birthday*, was originally conceptualized to commemorate the sesquicentennial of Kate Gleason’s birth. As already discussed by Michael Brown, our main goal was to disseminate the message that Kate Gleason should be seen as a visionary to our target audience of college-age students in a way they would find compelling. In its earliest iteration in June, 2015, we planned the exhibition as mobile and temporary, something that would pop up in one space, come down within a couple of hours, then pop up over the next several days at different venues all over the RIT campus. This was our solution to two major problems we had to overcome to make the idea of an exhibition into a reality: we had no access to a venue on campus where an exhibition could be installed and we had no original objects that had belonged to Kate Gleason that we could exhibit. A pop-up exhibition gave us the ability to take the exhibit to different places where large numbers of students congregated, allowed us to use simple flat panels to present our message, and enabled us to exploit the element of surprise as we appeared in a previously empty space with numerous

faculty and students handing out cupcakes to celebrate Kate Gleason's 150th birthday.

As originally imagined, the pop-up exhibition would consist of flat Mylar panels displayed on a portable unit designed for trade shows and conference displays that was already owned by the RIT Archives.⁴ Fully assembled, the unit was slightly elliptical, measuring 88 inches in height and 78½ inches across the front and back, with a seam down the center, creating two 29 inch panels on each side, for a total of four panels (fig.1).⁵ Our need to design the exhibit specifically for this device gave our abstract conceptualization of what its content *could be*, a definite push toward what it *would be*. We had planned to illustrate the multi-faceted nature of Gleason's accomplishments, and it isn't too surprising that we came up with *four* central facets to her career, engineering, manufacturing, building, and banking, one for each of the mobile unit's four discrete panels.

In designing these panels we endeavored to follow three of the best practices in exhibition design: first, that text blocks should be no more than 75 words long; second, that the text should be subordinate to



Fig.1. Mobile unit at the Saunders College of Business, Kate Gleason Pop-Up Exhibit #4 on December 2. (Photo by Tina Olsin Lent).

⁴ The unit was produced by Nimlok, a division of Orbus Exhibit & Display Group. We were extremely grateful to Archivist Becky Simmons and Deputy Archivist Jody Sidlauskas for their generosity in letting us use the unit and their assistance in teaching us how to set it up (repeated several times).

⁵ The individual panels were 28-7/8 inches, exactly.

the visual elements; and third, that the combination of images and text should convey a lively, appealing, and coherent narrative. We quickly realized that because we were all academics, conveying any concept in 75 words was impossible, so ours came in closer to 150 words.⁶ We also decided that Gleason's banking career was shorter and narratively less interesting than the other aspects of her career, so it became integrated into a summary of her accomplishments on the final iteration of the fourth panel. These four text panels would be unified narratively by the construction of Gleason as both an entrepreneur and an innovator who supported the causes of labor and woman suffrage—qualities that made her relevant and interesting to contemporary RIT students. Altogether, this constituted our “big idea,” the central, unifying concept that animates every exhibition (Klobe 38). Visually, this idea was reinforced by a large horizontal band of images of Gleason's enterprises that ran across the top of the four panels, and was echoed in a smaller horizontal band at the bottom showing side elevations of the houses she built in East Rochester (fig.2). At the end of July 2015, we learned that an exhibition venue on the RIT campus, the Sunken Gallery in the Wallace Library, would be available to us from November 16 through December 18, 2015, dates that coincided with Gleason's actual birthday, November 24. We were delighted, then overwhelmed when we realized what this meant. The main exhibition case in the Sunken Gallery measured 252 inches (21 feet) long, 64 inches high, and 14 inches deep. To use this space, we had to completely rethink how we could actualize our “big idea” using original three-dimensional and two-dimensional objects—which we had to first identify, locate, arrange to borrow, transport to campus, and figure out how to display. The case was flanked by 7' high concrete block walls on both sides, which were ideal for hanging duplicates of the panels planned for the mobile unit; these would now do

⁶ Didactic panels at museums appealing to general audiences keep the word count limited; at the Smithsonian Museums, main didactic panels use no more than 75 words, while those at The Strong National Museum of Play are limited to 65 words. Since we were in an academic institution and knew our audience was college educated, we felt we were speaking to our audience.

double duty by serving as the onsite exhibition's didactic panels. Suddenly we had two different versions of the exhibition to plan, each of differing sizes, layouts, and narrative demands.



Fig.2. The text panels (designed by K2 Communications, Rochester NY).

The Museum Studies faculty spent the rest of the summer researching Kate Gleason's life and career, visiting sites associated with her professional life, scouring local collections for objects related to her, and honing our thesis. We hired a communications firm to design an exhibition logotype to brand everything associated with it, to develop a poster, and ultimately to design and fabricate the panels for the mobile unit, which required more professional skills than we had.

By the end of September our logotype was completed. It consisted of a medallion featuring a high-contrast image of Kate Gleason against a brick red disk surrounded by a gear that was itself positioned between two more “gear flowers.” The words “Kate Gleason Visionary,” ran below it. This logotype was the basis for the final poster design and appeared on all related print and digital material (fig.3). Around this time, we realized that the number of original three-dimensional objects available for the exhibition had grown well beyond what we had imagined possible: we had identified a silver tea set from Gleason’s home in Septimonts, France, at the RIT Archives Collection, along with a volume of *The History of Woman Suffrage* inscribed to Kate Gleason by Susan B. Anthony; we found bevel gears, a model bevel gear planing machine, and Kate Gleason’s sales book at the Gleason Corporation; we located catalogues for Gleason’s trailer company and for a second tract of concrete houses in the East Rochester Department of Local History; and we had examined period clothing and mannequins at the Rochester Historical Society. In addition, we had identified literally hundreds of original two-dimensional objects related to Gleason’s life and career in the Rochester Public Library Local History and Genealogy Division, and in the Department of Rare Books, Special Collections and Preservation at the University of Rochester.

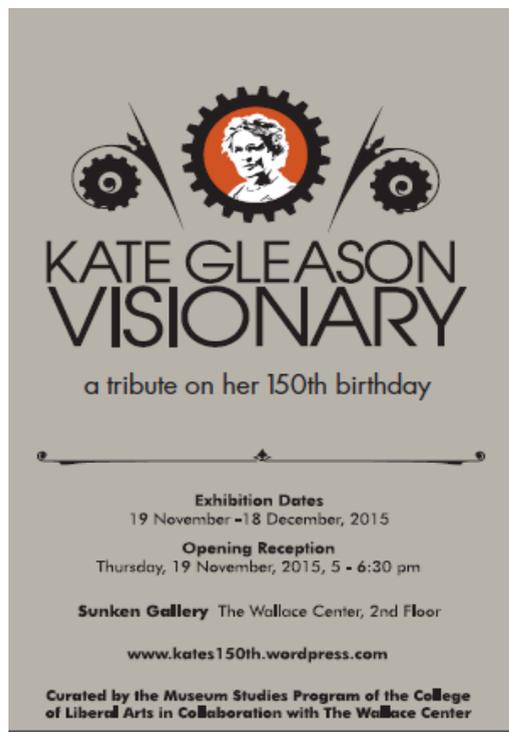


Fig.3. Kate Gleason Visionary exhibition poster (designed by K2 Communications, Rochester, NY).

By early October we had completed drafts of the text for the mobile unit's panels, had created a rough sketch of our idea for their layout to guide the designers, and had also made sketches of how the objects in the exhibition case could be arranged to facilitate the flow of our narrative. Our intention was to make our point visually, to show Gleason's multifaceted accomplishments without any explanatory text panels in the case. The large text panels flanking the case, and the exhibition title itself (to be included as a banner within the case), should provide sufficient information for the viewer to understand our "big idea." Within the case the only text used identified the specific objects being shown and their sources.

We organized the exhibition case into two sections, using three contrasting photographic portraits of Gleason to mark the beginning, the middle, and the end. The photograph at the left showed her in daytime clothing while the one at the right showed her in evening clothing, designating the public Kate Gleason as a working woman, and the private Kate Gleason as an activist for suffrage and reform, as well as a prominent member of Rochester society. The center image, a contemporary newspaper photograph, anchored both personas and drew the visitor into the gallery. Following the schema set by the photographs, the mannequin on the far left wore a daytime outfit that a woman of Gleason's class would have worn in the first decade of the 20th century, while the evening dress at the far right side was similar to the one in the photograph of Gleason from the late 1910s or early 1920s. On the left hand side, the exhibition included two models of bevel gears, Gleason's sales book, an income tax form signed by her, a catalogue of gear planers from the Gleason Works and another from the earlier Gleason Tool Company, and a certificate from The National Machine Tool Builders Association awarded in 1910 to Kate Gleason and her father, William Gleason. On the wall behind these objects, further representing her career, were photographs of her with workers from Gleason, a \$20 bill she had signed as president of the First National Bank of East Rochester, and a drawing of Concrest, the first housing subdivision she designed in East Rochester. On the right hand side of the case,

illustrating her private life, were a catalogue from Concrest, three volumes of *The History of Woman Suffrage*, with the inscription from Susan B. Anthony visible, the silver tea set, and on the wall were advertisements for her trailer company, a “Votes for Women” pouch she owned, an enlarged photograph of the Susan B. Anthony inscription, and a few photographs of her at her Rochester home, Clones (figs.4, 5).⁷

Once the exhibition was hung in the Sunken Gallery and had its opening party on November 19, the exhibition team’s attention turned to managing the pop-up exhibitions, which were scheduled immediately before and after the Thanksgiving break. There were four original venues planned: the Kate Gleason College of Engineering (Friday, November 20), the Student Alumni Union (Monday, November 23), the School of Architecture (Monday, November 30), and the Saunders College of Business (Wednesday, December 2). A fifth venue, the Gene Polisseni Center, home of the RIT ice hockey team, became available at the last moment, and the pop-up exhibition was there during games from Friday, November 20, through Saturday, November 21.



Fig.4. Kate Gleason Visionary exhibition panorama showing the main case and didactic panels that were hung on the side walls. (Photo by Tina Olsin Lent).

⁷ Figure 4 shows the entire Sunken Gallery, including the central case and the two side walls. Shortened versions of the mobile unit’s panels hang on either side of the case. Notice that the dark orange band that appears on the mobile unit in Figure 1 have been eliminated to accommodate the benches affixed to the walls. Figure 5 shows the central case.



Fig.5. Kate Gleason Visionary exhibition main case. (Photo by Kerry Jeyschune).

While our main goal was to present Kate Gleason’s multifaceted accomplishments to our college audience in a way they would find relevant, we also had a secondary goal of engaging a number of them, primarily the Museum Studies majors and those non-majors taking our classes, in direct involvement in the exhibition process itself. Some students were involved through the creation of ancillary exhibition events and objects, while others were involved through physical work on the exhibition and pop-up installations. The design of ancillary projects began in October in Juilee Decker’s Museums & the Digital Age class. Students divided into teams and developed projects, which included a Scavenger Hunt, Pop-Up art, trivia cards, research on Gleason’s home movies, the creation of a 3D-printed concrete bust of Gleason, social media activity, a website, and a digital publication. For the Scavenger Hunt students searched out and identified Kate Gleason-related objects on campus, wrote rhyming riddles as the clues, then disseminated three clues daily for four days on social media.⁸

Another team of students designed stickers using the central element of the exhibition’s logotype, but in four bright, contrasting colors

⁸ Phillip Fowler, Susana Flores, and Elizabeth Gwilt designed the Scavenger Hunt. A sample clue read: “I hang on the wall here in my green dress, watching students study for System Dynamics tests. What am I?” Answer: “Portrait of Gleason on 2nd floor, Building 09-Gleason, atrium.” A sticker was designed for winners of the Scavenger Hunt.

in homage to Andy Warhol, each representing different pop-up venues (fig.6).⁹ Each sticker carried the hashtag #PopInPopUp, which directed students to information about Gleason and the upcoming pop-up.¹⁰ This team designed two additional stickers, one showing Gleason in a hockey helmet for the pop-up at the Gene Polisseni Center (Fig.7, which was the most popular of all), and a special one for the winners of the Scavenger Hunt. Everyone loved the stickers so much that we made posters from each image and widely circulated them.

The trivia cards appeared at each of the pop-up venues and students working the event quizzed people walking by.¹¹

There was activity on social media, including Instagram, Facebook, and Twitter, using the additional hashtags #kg150, #concretetekate, and

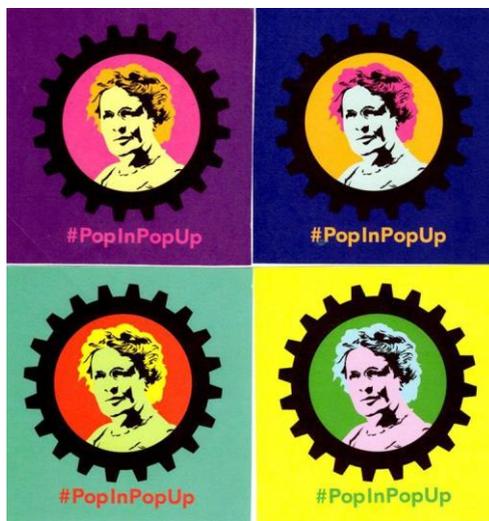


Fig.6. Kate Gleason pop-up stickers: Kate Gleason College of Engineering (purple), November 20; Student Alumni Union (royal blue), November 23; School of Architecture (aqua), November 30; Saunders College of Business (yellow), December 2; Gene Polesini Center (orange), November 20-21.

⁹ The Andy Warhol-style stickers were designed by Kenzie Mencer Robbins and Kelli Spampinato.

¹⁰ An example from social media: “Did you know that Kate Gleason was the first female bank president in the US without family ties to the institution? Learn more when you stop by the popup exhibit at the Saunders College of Business on Wednesday, December 2 from 11:30-1:30. Treat yourself to cupcakes and stickers as we honor Kate!”

¹¹ Ginny Gross designed the trivia cards. A sample trivia question read: “RIT proudly displays the Kate Gleason bust in what college? A. College of Liberal Arts; B. NTID; C. **College of Engineering**; D. College of Computing Sciences.”

#kategleason.¹² There was also a website and a digital publication informing people about Gleason and the exhibition.¹³ All of the projects continued throughout the duration of the exhibition and all were fully realized by the students.¹⁴

Several students participated directly in the installation of the exhibition in the Sunken Gallery and several more provided regular assistance for the several pop-up exhibitions.¹⁵ The work

involved in the pop-ups exceeded our expectations, as we had to transport the mobile unit to various sites on campus, set it up, hang the



Fig.7. Kate Gleason pop-up sticker, Gene Polisseni Center, Nov. 20 and 21.

¹² Michaela Chapman, Hailey Cothran, and Kerry Jeyschune created the social media activity.

¹³ The website content was organized by Dave Maynard and the digital publication was designed by Alissa Roy; Nicole Dombi was designer of both projects. One copy of the digital publication, which described all of the students' ancillary projects for the exhibition, was printed and remained in the gallery during the month of the exhibition.

¹⁴ Another project, film research on Kate Gleason's home movies (made c. 1928-30), from the collection of the University of South Carolina's Moving Image Research Collections, was worked on by four students, Heather Clarke, Emily King, Sam Pike, and Carly Washburn. Digitized versions of the films ran on a laptop during the exhibition opening. One student, Daniel Krull, undertook the project of making a 3D printed version of the bronze bust of Gleason created by artist Don Sottile, which wasn't completed during the run of the exhibition.

¹⁵ Gallery assistance came from students Jen Roeszies and Amanda Packard. There was also additional help from library staff, including Becky Simmons, RIT Archivist, and Kari Horowicz, Art & Special Collections Librarian. Assistance with the pop-ups came from Jean Pietrowski, Kerry Jeyschune, Kelli Spampinato, and most regularly of all, from Katy Kusse and Daniel Krull.

text panels, organize the stickers, trivia cards, and cupcakes, then talk about Kate Gleason to everyone who walked by. Since we were working during the last week of November and the first week of December, this meant that everything had to be pulled and carried outside, across campus, in the cold and the wind, and often in several inches of snow (fig.8). Without a reliable crew of students and faculty, the pop-ups would never have been possible.



Fig.8. Faculty (Rebecca DeRoo, Michael Brown, and Rebecca Edwards) in the center and students (Daniel Krull and Katy Kusse) on far left and right, transporting the mobile unit to Pop-Up Exhibit #2 in the Student Alumni Union on November 23. (Photo by Tina Olsin Lent).

How successful were we at attaining our goals? The opening reception at the Sunken Gallery was very well attended, and we subsequently invited special visitors to campus for individualized tours of the exhibition. During our many visits to the gallery, we observed people reading the wall panels and being absorbed by the objects in the

case. In some instances we watched students walking by, noticing the mannequins and other objects, and being drawn into the space to see what was there. In other instances, classes visited the gallery with their instructors. Based on our various metrics, we know there were more than 200 unique views of the exhibition website, 80 people attended the exhibition opening, at least 100 students attended with classes, and approximately 600 people viewed the pop-ups. The latter metric is based on the consumption of 50 dozen cupcakes handed out at the events (fig.9). In sum, by December of 2015 there were at least 1,000 people in the Rochester region who had become a bit more familiar with Kate Gleason and her many and varied accomplishments.

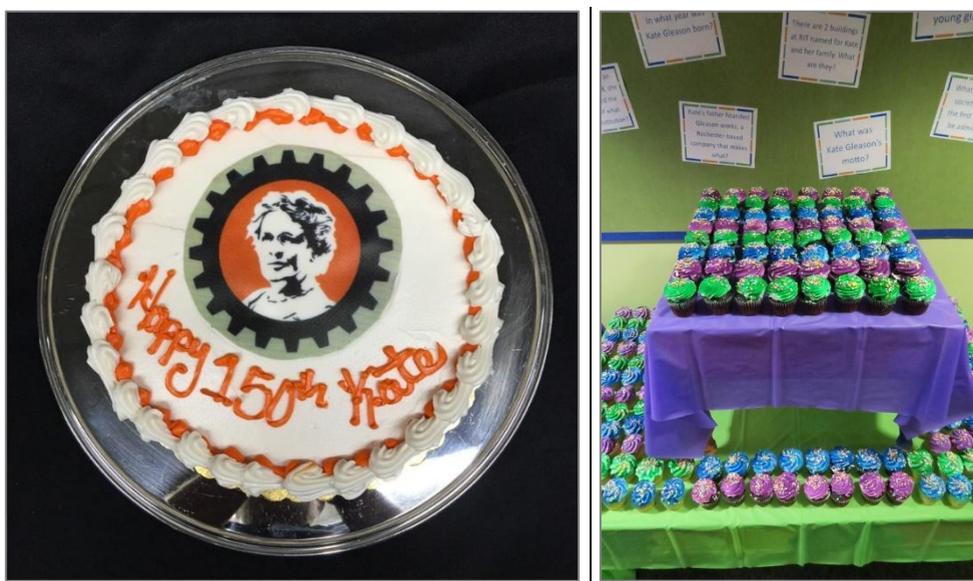


Fig.9. Kate Gleason Birthday cake at the exhibition opening and cupcakes at the pop-ups. (Photos by Tina Olsin Lent).

REMEMBERING KATE GLEASON: AFTERTHOUGHTS ON CELEBRATING A WOMAN VISIONARY

Rebecca A. R. Edwards

We sought to introduce our visionary, born in the nineteenth century, to a twenty-first century audience. Though this exhibition originated in a

university campus setting, we kept in mind that our audience extended beyond university students. We knew that we were also introducing Kate Gleason to faculty, administrators, and staff, as well as guests from off-campus. One might imagine, given that her name graces the College of Engineering, that Gleason's story is as well known as her name on campus, but this is not the case. In some ways, she is reduced merely to a name on a building here. Nor is her story well known in the wider Rochester community. We might have analyzed Gleason's peripheral place in public memory, especially relative to a comparable local figure like George Eastman, from a critical feminist perspective. Like Gleason, Eastman was a single person, innovator, business leader, and philanthropist. But Gleason was a woman. Devoting herself to a career and not a family, exactly like Eastman, makes her an oddity, while it makes him a bold captain of industry. The exhibition could have explored the role of gender in Gleason's life and legacy.

We might also have analyzed the role played by class. Her family and personal wealth created opportunities for Gleason to challenge gendered boundaries in ways that were not readily available to working-class women. Indeed, an intersectional exploration of class, gender, and race in Gleason's story would have allowed us to complicate that story, showing how she both acted within and against these categories.

But, as an exhibition team, we were facing some difficult choices about what we were trying to do and how best to accomplish it. An audience needs to know a story and have a sense of narrative before that story can be communicated. With this exhibit, we had first to do the work of introducing Gleason. We also had to be cognizant of the occasion that we were marking, Gleason's 150th birthday. We were seeking to celebrate her.

Independently, neither factor dictated that we had to avoid controversy or complexity. Together, however, they suggested that this was an exhibit that called for a nuanced tone. We decided that we wanted to keep the focus on Gleason, on her story, on her achievements. We gambled that the logical next set of questions would arise for viewers organically.

And we were not disappointed. Visitors to the pop-up exhibits did frequently ask us some variation on the question: “I live/work/go to school here. Why haven’t I heard of her before?” And in those conversations we could take the opportunity to provide richer answers. Popping up could be a springboard. Or it could just pop, as people stopped, read a little, looked at images, and moved on without further reflection. As an exhibition team, we had to be satisfied that they had learned a little about the woman who gave the College of Engineering at RIT her name. After 150 years, Kate Gleason deserved that, at least.

Among the multiple interventions that an exhibition about Gleason might have staged, we chose to present her as a potentially empowering antecedent to those reshaping representations of women in technical professions today. At a moment when professionals like Isis Wenger—and students like her on our campus—are contesting women’s exclusion and generating their own representations in the STEM fields, we believed that Kate Gleason’s story could serve as a usable past.

At a moment, too, when men like Musk, Zuckerberg, and Jobs have dominated discussions of how technology and its creators are reshaping the world, we believed that Kate Gleason’s story could amplify in such discussions the visionary role of women. By highlighting Gleason’s innovative contributions to a variety of fields, her linking of business and technology to social needs, and her forward-looking approach to all of these endeavors, we presented to twenty-first century students a figure who was both a twentieth-century businesswoman and a great deal more.

APPENDIX: REMEMBERING KATE GLEASON: THE EXHIBITION TEXT PANELS

Michael J. Brown, Juilee Decker, Rebecca DeRoo, Rebecca A.R. Edwards, & Tina Olsin Lent

Introduction

Kate Gleason's name is so familiar to everyone in the RIT community that it can obscure our recognition of her many and varied accomplishments. Born in Rochester on 25 November 1865, she was an entrepreneur and innovator who became internationally recognized for her acumen in business promotion and community development. Her interests were wide-ranging, spanning the fields of engineering, manufacturing, banking, and building. Over the course of her career, she managed multiple businesses and factories, and was instrumental in the planning and construction of several communities, in East Rochester, NY, Beaufort, SC, Sausalito, CA, and Septmonts, France. Her concerns for advancing the rights of women and the well being of workers underlay all of her projects. That her accomplishments exceeded the expectations of women of her day was recognized by Susan B. Anthony, who described Kate Gleason as the ideal businesswoman, of whom she had dreamed for fifty years.

Engineering

Engineering was part of Kate Gleason's life from the start. She grew up around her father's machine shop and in 1884 became the first woman to enroll in Cornell University's Sibley College of Engineering and Mechanic Arts. When called home to help the family business in 1885, she put her engineering knowledge to work, becoming a salesperson for the company's machine tools and managing its finances. As the American economy slumped in the 1890s, she encouraged the firm to develop its line of gear-cutting machines, which became essential to automobile production. She also set sail to win customers for Gleason products in Europe, and her efforts helped place the business on solid ground. Accounts of how she dazzled machinists with her detailed knowledge of bevel gears won her a sterling reputation and the company

more business. In 1914 Kate Gleason became the first woman elected to the American Society of Mechanical Engineers.

Manufacturing

Building upon 30 years of successful administration and a career as a traveling sales agent for her father's company, Kate Gleason disengaged from the gear business in 1915. Like the bevel gear itself, she changed direction. Her professional pursuits shifted from machine tooling to trailer manufacturing. Such vehicles were adaptable for work or leisure due to their abilities to transport passengers, livestock, nursery goods, mail, and, of course, the commodity of Rochester's "other" industry—pianos! The trailer was also a site for enhancement, as well as technical advancement, as evidenced by her design for a "Hi-Speed Trailercar"—a camper that was "a practical and luxurious movable hotel on wheels" offering the comforts of home. By 1921, however, Gleason's interest in trailers had waned and she sold the Northway Trailercar Company and moved on to other projects. She never stopped thinking of ideas, claiming "the greatest fun I have in life is building-up, trying to create." The projects she undertook in her middle years bear witness to her continued entrepreneurial spirit: "I have done what I set out to do, and much more" (qtd. in Rochester Public Library, para. 2).

Building

In the 1910s and 1920s, Kate Gleason built a country club and more than one hundred homes in East Rochester. Best known is Concrest, a community comprising more than fifty concrete homes, which she designed to be attractive, efficiently built, and affordable. She was inspired by her travels and created the homes to evoke cottages in European villages; she sited them on pastoral, winding streets, curving around a hill, and adjacent to a park. These 20 ft x 20 ft houses, priced at \$4000, provided a path to home ownership for workers, who could pay \$40 a month for "a home with a deed, title, porch light, garage, fine view, fireplace, electricity, green grass, French windows..." She used poured concrete to construct the homes as it was fireproof, economical, and durable—she wanted the homes to last one hundred years. In 1921,

Concrest was featured in the trade journal *Concrete* and in 1922, Kate Gleason became the first female member of the American Concrete Institute.

Accomplishments

Kate Gleason's career can be summed up by a list of "firsts" she accomplished. She was the first woman enrolled in Cornell's engineering program in 1884. She was the first woman who qualified for membership in several professional engineering organizations in 1914, including Verein Deutscher Ingenieure, the American Society of Mechanical Engineers, the Rochester Engineering Society, as well as the American Concrete Institute in 1922. Beyond this, she was the secretary and treasurer of Gleason Works from 1890-1913, while also serving as its chief sales representative. She was also very active in the development of East Rochester, building and managing eight factories, serving as the president of The First National Bank of East Rochester (1918-1920), and overseeing the construction of more than 100 homes. She said that she wanted one thing, "[...]to demonstrate that a business woman can work as well as a man." Kate Gleason's accomplishments in Rochester up to 1922, and the work she did elsewhere during the final decade of her life, attest to her success.

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