

# Brooms and Bonnets:

How the Toy Industry Influences Girls Towards Domesticity and Away From STEM

*By Selena Nie*

---

---

During an outreach event with my high school robotics team at a Boys and Girls Club, I was shocked when none of the girls raised their hands when asked who was interested in science, technology, engineering or math (STEM). One of the girls explained that, as children, her brother had always played with building blocks and trains while she had dolls and kitchen sets; it seemed that her apprehension towards STEM had originated in the differences in play experiences between her and her brother. This young girl's lack of interest in STEM was not an isolated instance, but a reflection of the broader pipeline issue in academia and industry: fewer girls than boys choose to pursue education and careers in STEM fields. The National Council for Women and Information Technology reports that women in the United States obtain a lower percentage of STEM degrees than they did 30 years ago; in 1984, 37% of computer science majors were women, but by 2014 that number dropped to 18%. This trend of a smaller percentage of women pursuing scientific and technical fields does not indicate a genuine lack of interest but instead is representative of the lack of exposure to STEM role models for young girls. One of the earliest avenues in which children envision their role in society is through their toys.

Toy manufacturers promote the gender division in society by assigning gender roles and stereotyping children from a young age. When walking through toy stores, it is easy to distinguish which toys are for whom; boys' toys are red and blue while girls' toys are sparkly pink and purple. Boys are given hands-on building and science projects, while girls have beauty

accessories and domestic toys. The differences in toys targeted towards girls and boys may seem insignificant, but they affect which toys children choose to grow up with.

As proven in a Worldpay Zinc survey, toys are “much more than playthings.” They “inspire... imaginations [and] nurture learning,” and pushing girls away from building sets is a powerful explanation for the low numbers of women in STEM (Muffitt). Gendered toys contribute to this inequality in STEM by not “facilitat[ing] analytical competency” and promoting passivity and domesticity for girls (Kacerguis and Adams 373). The difference in “childhood socialization processes” between boys and girls influences the types of careers children pursue in their adolescence and later in adulthood (Kacerguis and Adams 369). From a young age, children are aware of gender roles and develop a sense of what roles and tasks are appropriate for them based on social norms. Because children are aware of what is socially acceptable, girls already have limited vocational options decades before they actually enter the workforce.

Toys are crucial to the psychological development of children, their career decisions, and their goals; when girls grow up with more domestic-oriented toys, they are less likely to picture themselves in STEM fields, which are typically thought of as masculine careers. Gender-based toys limit the potential careers children consider because they exclude jobs associated with the other gender. Although it can be argued that children’s later career choices are not affected by their youth, it is their very impressionability that makes the toys they play with crucial to their future. These seemingly insignificant objects represent all the possibilities available to children; however, by gendering toys, girls are sent indirect messages and their exposure to STEM is limited, only contributing to and magnifying the gender inequity in STEM fields.

Today gendered marketing in the toy industry persists through narrow categorization. In a study by sociologists Carol Auster and Claire Mansbach, they examined “toys sold on the Disney Store’s website” and discovered that all the toys were specifically placed in the categories of “for boys” or “for girls.” Despite there being several toys that were considered acceptable for both genders, “there was no ‘for boys and girls’ option” (Sweet). The division between toys considered suitable for boys versus girls is a reflection of the larger issue permeating the toy industry. There is a possibility for a grey area to exist, but the enduring influence of gender markers, such as color and roles, highlights the lack of toys marketed to both genders. Toy companies are capable of marketing toys in more gender-neutral methods, but choose not to, only perpetuating gender stereotypes.

Gender stereotyping, however, is not a new phenomenon to the toy industry and dates back to the 20th century. Elizabeth Sweet, a postdoctoral scholar in sociology, observes that “toys of the past [were also] deeply infused with gender stereotypes.” For instance, from the 1920s to the 1960s, girls’ toys “focused heavily on domesticity and nurturing... [while boy’s toys] emphasized preparation for working in the industrial economy” (Sweet). These differences were highlighted in Sears ads where toys marketed towards girls included broom and mop sets, dinner service and cookware sets, and sewing machines; meanwhile, the Erector construction set was designed for boys and asserted, “Every boy likes to tinker around and try to build things...he will learn the fundamentals of engineering” (qtd. in Sweet). This explicit association of engineering with boys perpetuates the notion that girls are not expected to be interested in this field — instead they are homemakers and wives. Boys’ toys promoted the idea that men are crucial to the economy by being the creators and builders, while girls contributed only by being wives and mothers. Marketing the Erector construction set to both genders could have introduced

girls to the world of engineering and construction; instead, the gendering of the toy left girls out of the conversation to be builders, engineers, and architects.

Progress was made in the 1970s with the rise of the new de-gendering trend; “gender coded advertisements...declined” and ads “actively challenged gender stereotypes” (Sweet). Real advancements were made towards gender equality, but it was only temporary. Companies reverted back to gendered advertising in the late 20th century. The deregulation of children’s television shows allowed toy companies to create “program-length advertisements for their products,” and with these advertisements came the rise of gender as a differentiator of the products intended for boys and girls (Sweet). The marketing shift in the 1970s and 1980s “was a vigorous reassertion of what the industry had already been pursuing but this time with maximum effort into extending quintessential elements of femininity or masculinity to a new level” (Varney). Now, instead of explicit sexism, toy manufacturers focus their marketing on implicit sexist cues, such as color.

The “color-coded minefield” that is the toy aisles negatively affects a child’s development by suggesting what type of careers they should pursue before they have the chance to figure out whether or not they actually want to (Schwab). Restricting toys by gender reinforces outdated gender roles and limits creativity, as children are not exposed to all possibilities. When children are told what toys are for their gender, it causes boys and girls to narrow their choices in order to conform to society’s expectations. The negative connotations attached to specific toys pressure children to avoid them in order to please their parents and society.

Although headway has been made to move closer to gender equality, the toy industry is still stuck in the antiquated mindset where gender discrimination and sexism are the norm. “Gender stereotypes are attached to children at a...young age,” and the type of toy a child grows

up with has a lasting effect on careers. Toys “nurture their learning...[but] pushing boys away from playing with dolls potentially excludes them from entering caring professions...[and] stopping girls from building miniature aeroplanes could be the reason for the low amount of women in STEM” (Muffitt). If little girls are not given opportunities to build airplanes or marble runs, how will they have the knowledge that technical careers exist, let alone imagine pursuing them? Children may never develop a full understanding of their range of interests because their playtime options are established at such a young age. Gender based toys give boys and girls ideas of what they are supposed to do and like, limiting the skills and hobbies children decide to pursue.

Furthermore, the toy industry has limited potential career choices for children by bringing attention to the public distrust of professionals in unconventional careers. Because individuals grow up with expectations of what careers men and women should fulfill, they become uncomfortable when these social norms are broken. The backlash faced by those who defy these stereotypes lowers children’s confidence in being able to succeed in their field of interest as many people would prefer to have the other gender serve them. It is challenging for girls to become professionals in STEM fields when the message surrounding their interest and talent is that they are not to be trusted, simply on the basis of gender. The conviction that female STEM professionals are not to be trusted arises from the few role models known to children. This lack of examples occurs due to the division in the medium used to expose children to such possibilities. In November of 2013, “the Worldpay Zinc survey...questioned 2,000 people on attitudes in the workplace [and] revealed that many...think certain jobs should only be filled by men, and some only by women” (Muffitt). Two thirds of the individuals surveyed believe that men are “better mechanics, electricians and plumbers than women,” while nearly the same

number, 64%, would prefer to buy flowers from a female florist (Muffitt). This staggering figure demonstrates the importance of toys as avenues to introduce children to atypical careers, countering society's perception of who belongs in such roles. The study also called attention to the fact that "the distrust of women in particular roles is strongly felt," as 10% of participants would not trust a female pilot and would ask for their flight to be changed.

The toy industry has created toys that appear to promote women in STEM; however, they continue to send harmful, indirect messages to young girls. For example, the *Barbie I Can Be a Computer Engineer* book faced backlash due to stereotypes that present throughout the story. In the book, Barbie tries to create a game to show children how computers work but admits that she is only creating the designs for the game. In order to transform her ideas and concepts into reality, she needs the help of two male friends to write the code for the game. Despite the title depicting Barbie as a computer engineer, she lacks the skills and expertise needed to create a computer game. This story could have demonstrated Barbie's industriousness and persistence to overcome her struggles in computer engineering by narrating the process of mastering the skills needed to achieve her goal. Instead of learning to program, however, she relies on her male friends to do the work for her. Barbie is not only a poor role model to the children in the story, but more importantly she is a poor role model to the children reading the story as she concedes to her lack of technical abilities without choosing to improve her skill set. Additionally, Barbie "gets a virus on the computer, which then infects another computer" (NPR Staff). Once again, she is unfit to solve her own problems, and depends on the boys to fix them for her. This book attempted to send the message that girls have the potential to be in and should visualize themselves in the fields of computer science and computer engineering. Rather, it only enforced

the sentiment that girls are unsuited for the field of engineering by portraying Barbie as incapable of achieving her goal and focusing on her lack of analytical and technical skills.

Similar to Mattel, Lego produced a “Women of NASA” kit in 2012 to introduce girls to STEM and the trailblazing women in their respective STEM fields. The “Women of NASA” kit includes minifigures of 4 pioneering women of NASA: astronomer Nancy Grace Roman, computer scientist Margaret Hamilton, astronaut and physicist Sally Ride, and astronaut and engineer Mae Jemison. From the outside, it seems Lego is an indisputable advocate for women and girls in STEM, but there is one problem, the availability of the product. Despite skyrocketing to Amazon’s number 1 best-selling toy in just 24 hours and having sold out on the platform within days, the item has been retired by Lego. Since removing the “Women of NASA” kit from their website, Lego has only released 8 female minifigures with scientific and technical skills, indicating the persistent gender stereotypes and biases in the toy industry. Through Lego’s actions, it is fair to speculate that the company promotes the idea of women in STEM as a rare find and proposes that the sight of women in these fields should be considered uncommon. With the lack of scientific and technical role models available to girls, it is challenging for them to believe that their goals in STEM fields are achievable; simply put, young girls cannot be what they cannot see. Additionally, retiring the kit from the market creates the impression that women’s contributions to the scientific community are not valued as much as those made by their male counterparts. Despite being crucial to the success of NASA’s programs, Nancy Grace Roman, Margaret Hamilton, Sally Ride, and Mae Jemison’s recognition was short-lived. Lego’s actions send the message that women have limited opportunities in STEM; no matter a woman’s success in her respective STEM field, there are restrictions to what can be accomplished and how

much recognition she receives. The glass ceiling that exists in STEM industries is no longer a potentially breakable barrier but a nearly indestructible concrete barricade to little girls.

This indestructible barrier is rooted in a larger systemic problem of gender roles and stereotypes that have been ingrained into society. Although they might not intend to, parents and adults can contribute to this social issue as they select the toys made available to their children. Toys provide visual and tangible role models for children, which can either hinder or encourage a young girl's desire to pursue STEM fields by how women are represented in these fields. Despite a variety of factors contributing to the lack of women in STEM, such as elementary teachers' biases, social norms, and an unwelcoming and "bro-like" culture of tech-companies, they are not the primary experience that deters young girls from science, technology, engineering, and mathematical fields. These factors impact children as they grow and develop, but toys form the basis of childhood experiences. The link between toys and children's later career choices is often overlooked as it only receives attention when toys explicitly bring attention to generalizations about a given gender's interests and abilities. As such, the factors mentioned above, and additional factors, only compound on top of the original experiences that relegated the possibility of STEM fields into nonexistence for young girls.

There is a growing market for "gender- neutral and non-stereotypical toys;" however, it is difficult for successful toy startups to gain the attention of big-box retailers (Schwab). Large retailers often have a rigid framework to make it simpler for customers to find what they want, but this makes it challenging to define which shelves unconventional toys belong on. This system may simplify the process for parents and adults to select toys for children now, but it later complicates the decisions that children make in relation to occupations and careers.



Unfortunately, as shown earlier, I have experienced this consequence first hand.

Witnessing the young girl's lack of interest in STEM was not unfamiliar to me, it was almost expected. Throughout my 4 years of STEM-focused volunteering, I have frequently observed the difference in exposure levels to STEM between boys and girls based on what activities and toys were targeted towards them. An even starker disparity between boys and girls occurred in their belief of whether pursuing science, technology, engineering, and mathematics was an attainable and realistic goal. As the child of mechanical and software engineers, I understand just how influential these childhood experiences are to opening and closing doors to potential careers. My childhood was filled with coloring books and dolls, but also with Lego sets and science experiments; and I attribute my interest in computer science today to the toys and activities I played with at a young age that exposed me to logic and technical concepts.

Although women fill close to half of all jobs in the U.S. economy, they hold less than 25% of STEM jobs. According to the National Council for Women and Information Technology, there will be around 1.4 million computer specialist job openings expected in the U.S. by 2020. Women have the capability to hold 50 % of those jobs. In order to reach that point, however, where women earn 50% of STEM degrees and hold 50% of STEM jobs, we need to start at the very beginning with early engagement and education. Girls need to be engaged earlier to fill the STEM career pipeline, and it all starts in the toy aisle.

Works Cited

- Kacerguis, Mary Ann, and Gerald R. Adams. "Implications of Sex Typed Child Rearing Practices, Toys, and Mass Media Materials in Restricting Occupational Choices of Women." *The Family Coordinator*, vol. 28, no. 3, 1979, pp. 369–375., doi:10.2307/581951. Accessed 17 Oct. 2019.
- NPR Staff. "After Backlash, Computer Engineer Barbie Gets New Set Of Skills." *NPR*, NPR, 22 Nov. 2014, [www.npr.org/2014/11/22/365968465/after-backlash-computer-engineer-barbie-gets-new-set-of-skills](http://www.npr.org/2014/11/22/365968465/after-backlash-computer-engineer-barbie-gets-new-set-of-skills).
- Muffitt, Eleanor. "Now's the Time to End the Boys' and Girls' Toys Gender Divide." *The Telegraph*, Telegraph Media Group, 8 Dec. 2013, [www.telegraph.co.uk/women/womens-life/10498316/News-the-time-to-end-the-boys-and-girls-toys-gender-divide.html](http://www.telegraph.co.uk/women/womens-life/10498316/News-the-time-to-end-the-boys-and-girls-toys-gender-divide.html).
- Schwab, Katharine. "Beyond Blue and Pink: Will Toys Ever Be Gender-Neutral?" *The Atlantic*, Atlantic Media Company, 11 May 2016, [www.theatlantic.com/entertainment/archive/2016/05/beyond-blue-and-pink-the-rise-of-gender-neutral-toys/480624/](http://www.theatlantic.com/entertainment/archive/2016/05/beyond-blue-and-pink-the-rise-of-gender-neutral-toys/480624/).
- Sweet, Elizabeth. "Toys Are More Divided by Gender Now Than They Were 50 Years Ago." *The Atlantic*, Atlantic Media Company, 9 Dec. 2014, [www.theatlantic.com/business/archive/2014/12/toys-are-more-divided-by-gender-now-than-they-were-50-years-ago/383556/](http://www.theatlantic.com/business/archive/2014/12/toys-are-more-divided-by-gender-now-than-they-were-50-years-ago/383556/).
- Varney, Wendy. "Of men and machines: images of masculinity in boys toys." *Feminist Studies*, vol. 28, no. 1, 2002, pp. 153–174., DOI: 10.2307/3178498. Accessed 17 Nov. 2019.