Technovation Girls

Alumni Survey Report (2020)

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Introduction

Technovation Girls is a competition for youth ages 10-18 to develop mobile apps that address problems in their communities. Since its launch in 2010, the program has reached more than 50,000 girls across more than 100 countries. To better understand the long-term impacts of participating in Technovation Girls, a survey was administered to alumni from the earliest cohorts. The survey contained 32 items focused on (a) experiences during Technovation Girls, (b) educational and career achievements, and (c) confidence and use of skills included in the Technovation Girls curriculum (see Appendix). Using the Technovation theory of change model as a lens, we analyzed responses with an eye towards evidence of growth in learning, innovating, leading, persevering and careers.

How we gathered the data. Technovation curated a list of alumni emails using contact information provided during the competition and from a search for current information on social media sites (e.g., LinkedIn). A total of 2,398 alumni were sent an invitation to complete the survey; 1,969 emails were successfully delivered. From this outreach, we received a total of 62 survey responses, or a 3% response rate. After removing responses that were empty, insufficiently complete, or duplicated, we retained 41 unique respondents in our analysis sample. Some respondents did not complete the entire survey. Tables indicate the sample size for individual survey items and percentages reflect the number of respondents who answered the given survey item.

Our analysis approach. Technovation's theory of change identifies five areas of individual impact for youth participating in their programs: (a) self-efficacy, (b) entrepreneurship, (c) life and career skills, (d) STEM careers, and (e) learning, leadership and innovation skills. Concerning the Technovation Girls program, five character impacts were identified that we further defined for our analysis (see Table 1). Throughout the report, we use these impact areas as a lens for interpreting survey responses.

Table 1. *Character Impacts in the Technovation Girls Theory of Change*	
Learning	Desire to learn, broadening of interests, choice of content and subject, pursuing further education
Careers	Factors leading to or related to careers, interest in fields or industries, internships, jobs, networking
Innovation	Creativity and initiative in solving problems in work or education
Leading	Taking on roles of leadership in any group or community
Persevering	Persisting in the face of challenges, particularly in education or career

Who completed the survey. Seven program years (2010 – 2016) were represented in the sample; seven respondents participated during multiple years. The age of respondents ranged from 21 to 31 years old, with an average age of 24 years old. Respondents participated in the program in 13 unique countries; most participated in the United States. Of the respondents who provided information about both their program country and current country (n = 32), three have since moved to a new country. Eight participants served as Student Ambassadors and two served as Team Mentors.

Table 2. *When did you participate in Technovation Girls?*

Year	2010	2011	2012	2013	2014	2015	2016
Count	3	15	8	6	6	10	2
%	7%	37%	20%	15%	15%	24%	5%

Table 3. *How old are you?*

Age	21	22	23	24	25	26	27	28	31	Missing
Count	4	6	4	3	8	3	2	1	1	9
%	10%	15%	10%	7%	20%	7%	5%	2%	2%	22%

Table 4. *Where did you participate in Technovation Girls?*

Country	Count	%
United States (US)	28	68.29%
Uganda (UG)	1	2.44%
Morocco (MA)	1	2.44%
Canada (CA)	1	2.44%
India (IN)	1	2.44%
Mexico (MX)	1	2.44%
Kenya (KE)	1	2.44%
Moldova, Republic of (MD)	1	2.44%
Zimbabwe (ZW)	2	4.88%
Tunisia (TN)	1	2.44%
South Africa (ZA)	1	2.44%
Brazil (BR)	1	2.44%
Jordan (JO)	1	2.44%
Unique Countries	13	
Total Respondents	41	

Key Takeaways

- Technovation Girls influenced alumni to pursue education and career paths related to computer science and technology

- Alumni developed self-confidence and teamwork skills during Technovation Girls; they were introduced to coding but only feel a little confident in their programming skills

- Alumni carry their leadership skills into their universities and workplaces

The Technovation Experience

Figure 1. Describe your Technovation Experience (n = 36)

Alumni had fun while building teamwork skills, technical skills, and self-efficacy. As shown in Figure 1, Technovation elicited positive memories for most alumni. Several respondents described their experience as fun (n = 6, 17%) and inspiring (n = 3, 8%). When asked about the most important thing they learned from the program, respondents discussed ideas related to teamwork (n = 12, 39%), technical skills (n = 7, 23%) and self-efficacy (n = 7, 23%). Often themes were interconnected, with skills development supporting self-efficacy:

> *With a good, solid group who supports each other, you can accomplish anything. Doesn't matter the background, doesn't matter what you're going to major in, everyone has a different set of skills that are useful to completing the overall goal.*

> *When I realised that there were other girls out there being persecuted for being smart and speaking English and wanting to succeed, I realised that sharing my views and talents could help someone else.*

> *I had never really been put in leadership roles before and nailing things through the Technovation Challenge gave me the confidence and self-assurance to actively pursue leadership roles in college and later in my workplace.*

We also reviewed these open-ended responses for evidence of the five character impacts of Technovation's theory of change model (see Table 1) and identified eight relevant comments. Most respondents discussed themes related to careers (n = 4, 13%). Two of these alumni mentioned gender in STEM with their most important takeaways being *"there are women in STEM"* and *"I learned not to be intimidated going into a STEM career because it was male-dominated."*

Other alumni described how Technovation gave them insight into the tech industry. One alum wrote, *"I learned how exciting and innovative the tech world could be."* Another wrote, *"I learned that programming and product development was an industry. I am now a Software Engineer!"* The other impact areas of learning, innovation, leading and persevering were each mentioned by only one respondent. In the following sections, we explore these impact areas in more detail.

Educational and Career Achievements

Most alumni obtained STEM degrees and at greater rates than undergraduates worldwide

Most respondents have completed a bachelor's degree (n = 31, 76%) or master's degree (n = 2, 5%). A smaller number of alumni (n = 7, 17%) have completed some college and one respondent is in high school. Several respondents (n = 15, 37%) are currently enrolled in college pursuing either undergraduate or higher level degrees.

Thirty-eight alumni indicated their fields of study and eleven respondents studied multiple fields. Given the variety in names used to designate fields of study, we grouped similar terms to facilitate comparison (see Figure 2). Most respondents (n = 29, 76%) studied a STEM related field, which includes natural sciences, social and behavioral sciences, computer and information sciences, engineering and mathematics. Computer science (n = 7, 18%) and the related fields of information technology (n = 4) and computer/electrical engineering (n = 4, 11%) were frequently cited. Technovation alumni pursued STEM degrees at greater rates than female students worldwide. Of the countries represented by respondents, an average of 34% of female students were enrolled in ICT programs between 2016 and 2018[1].

Figure 2. What field(s) did you study? (n = 38)

Alumni work in a variety of occupations, many in STEM roles or industries

Career choices mirrored patterns seen in the fields studied in college (see Tables 4 and 5). Just over half of the thirty-two respondents who provided their current occupation are working in STEM-related positions (n = 19, 60%). This is well over the 29% of women who worked in STEM related occupations in the U.S. in 2013[2]. A large portion of alumni (n = 13, 41%) have pursued careers in other fields. Only 20 respondents noted their experience level. Most respondents are interns or working in entry level roles (n = 13, 65%). Several alumni are working in mid-level roles including manager level roles (n = 7, 35%).

Respondents also reported the companies where they currently work (see Table 6). Alumni of Technovation Girls are employed at both small and large companies, including several Fortune 500

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[1] SOURCE: UNESCO Institute for Statistics (*http://data.uis.unesco.org/*). Percentages for the countries in our sample: Brazil (13%), Canada (25%), India (44%), Kenya (23%), Mexico (26%), Morocco (40%), South Africa (37%), Tunisia (51%), USA (20%), Zimbabwe (58%). No data were available for Jordan, Republic of Moldova or Uganda.

[2] SOURCE: *https://www.nsf.gov/statistics/2016/nsb20161/#/report/chapter-3/women-and-minorities-in-the-s-e-workforce*

companies (i.e., Amazon, Facebook, and Google). Several are working at higher education institutions including Columbia University, University of California Berkeley and University of Chicago.

A small number of respondents are currently unemployed (n = 11, 27%). Most of these alumni are attending school (n = 7, 17%). Unemployment also relates to caretaking and pregnancy (n = 1, 2%), inability to find work (n = 1, 2%) and layoffs resulting from the COVID-19 pandemic (n = 2, 5%).

Table 5. *What is your occupation?*	Table 6. *Job Industry of Current Position*
STEM Related (n = 19, 51%)	Accounting
Architectural Internship	Architectural
Data Analyst	Biotechnology
Data Science*	Business and Finance
Electrical Design Engineer	Engineering
Junior Systems Analyst	FinTech (2)
Lab Manager	Higher Education
Laboratory Technician (2)	Housing/Real Estate
Program Manager	Information Technology
Project Engineer	Law (2) *
Science Journalist and Editor	Library
Software Engineer (6)	Media/Communications
Tech Recruiter	Mobile Gaming
Technical Program Manager	Research/ Academia
Other (n = 13, 35%)	Service Industry
Administrative Management	Social services/nonprofit
Associate Content Specialist - Marketing	Teaching
Associate Underwriting Analyst	Tech (6)
Legal Researcher	
Library Technician	
Logistics*	
Marketing Coordinator	
Nonprofit*	
Program Coordinator (2)	
Server	
Strategic Planning and Analysis	
Teacher	
*Responses described industry or subject matter	** Includes "Forms and Legal Documents"*

Table 7. Companies of Working Alumni	
Adriana Zanotti - Arquitetura e Design	KPMG
Adyen	Oi Playschool
Amazon Canada Fulfillment Services ULC	Peach Street
Appfolio	Peppers and Fries
Business and Finance Consulting*	Self-employed*
Columbia University	Sexual Assault Center for Pierce County
Facebook (2)	Skillz
FormSwift	Triad East Africa Company Limited
Genentech	UC Berkeley
Google (2)	University of Chicago
Homes by Kelli	VMware
*Some respondents provided information on type of employment or field rather than a specific company name	

Experience in the tech industry or tech roles. About equal numbers of respondents have either worked in the tech industry (n = 19, 53%) or have no experience in tech (n = 17, 47%). Of those with experience in the tech industry, twice as many have worked in technical roles (e.g., software engineer, technical program manager) than in nontechnical roles (e.g., human resources, tech recruiter). Younger alumni are less likely to have worked in the tech industry. Many are still in school or simply have fewer years of work experience. However, most of the twenty-two alumni from program years 2010-2012 have worked in tech in technical roles (n = 9, 41%), non-technical roles (n = 5, 23%) or an unclear role (n = 1, 5%).

Table 8. *Have you ever worked in the tech industry or in a tech related role?*									
Experience in Tech	2010	2011	2012	2013	2014	2015	2016	Unique Respondents*	%+
Technical Role	1	5	4	0	0	2	1	11	27%
Nontechnical Role	1	5	0	0	0	0	0	5	12%
Unclear Role in Tech	0	2	1	1	1	0	0	3	7%
No Tech Experience	1	2	1	4	4	5	1	17	41%
Missing	0	2	2	1	1	3	0	6	15%

*Because some alumni participated in multiple program years, summing each category may yield a number greater than the value in Unique Respondents. This also applies to the tables below.
+Percentages sum to greater than 100% because one alumni described multiple roles in tech, one in a nontechnical role and one in an unclear role.

Alumni have been recognized for their achievements mostly at school and work

Fifteen alumni reported receiving awards or recognitions since attending Technovation Girls. Awards were categorized by the type of achievement recognized (e.g., a community award indicates an alumna received an award for supporting their community, not that a community organization offered the award). Most alumni received awards related to their school achievements. Seven respondents noted multiple awards. A sampling of awards and recognitions include:

Table 9. *Have you received any awards or recognition from your school, workplace or community?*		
Type	Count	%
School	12	80%
Work	5	33%
Community	2	13%
Other	2	13%

- Winner of Zimbabwe National Debate Championships and represented Zimbabwe in the African and World University Debating Championship
- Achievers Award, Bulawayo Polytechnic
- Eckert Fellowship, University of Pennsylvania School of Engineering
- Outstanding Service Award, University of Pennsylvania School of Engineering
- National Neuroscience Honor Society
- Fellowship at Public Health Post
- Travel Fellowship from Council for the Advancement of Science Writers
- High School Valedictorian
- Phi Beta Kappa in College
- Graduated from university cum laude

Impact of Technovation

This section looks at the impact Technovation Girls through the lens of the character impacts identified in the Technovation theory of change (see Table 1). We used four of the five impact areas – Learning, Careers, Innovation, Leadership – to guide our analysis. We did not include Persevering in this section because no survey questions explicitly targeted this area of impact.

Learning: Technovation increased some alumni's confidence in studying computer science but deterred others

Most alumni (n = 22, 58%) said Technovation influenced their education choices. Responses revealed several common mechanisms by which Technovation influenced these choices: (a) **providing exposure** to computer science, related academic disciplines and real-world applications of tech; (b) **increasing interest** in the pursuit of computer science and tech; and (c) **building confidence** in computer science and related subjects.

Many credited Technovation for giving them their first real experience with coding. Nearly twice as many alumni attributed Technovation's influence in their education choices to an increase in confidence (n = 7, 18%) rather than exposure to the field (n = 4, 11%) or increased interest in the field (n = 4, 11%).

Table 10. *Did Technovation influence your education choices?*		
Year	Yes	No
2010	2	1
2011	11	2
2012	2	5
2013	5	1
2014	2	4
2015	5	4
2016	2	1
Unique Respondents	22	16
Percentage Unique Respondents	58%	42%

Alumni also discussed several outcomes resulting from their Technovation experience. Two common outcomes related to (a) taking computer science or tech-related courses (n = 7, 18%) and (b) selecting computer science or tech-related majors (n = 3, 8%).

Technovation motivated me and gave me the confidence that I could enjoy and excel in technology field…Without Technovation I might not have had enough confidence to choose CS as a major.

Three alumni indicated that participating in Technovation influenced them to choose a non-tech education path. For two of these alumni, the program helped them realize their interests lay elsewhere. The third alumni described unpreparedness as the reason for not studying computer science, saying: *"I thought about studying Computer Science in college but felt that I wasn't prepared for the academic rigor. I decided to pivot to a major that would yield me high grades."* This response echoes a common theme that will be discussed further in later sections. While Technovation played an important role in exposing many alumni to coding, many also felt that curriculum did not sufficiently develop their programming skills.

Careers: Career choices were mediated by alumni's education choices and exposure to the tech industry

Mirroring Technovation Girls' influence on education choices, the program also influenced many alumni to pursue careers in tech and related fields. Respondents discussed three driving mechanisms through which Technovation guided their career choices: (a) exposing girls to multiple career options in tech; (b) engendering a desire to pursue tech careers; and (c) increasing confidence in their ability to succeed in tech. For example:

Table 11. *Did Technovation influence your career choices?*		
Year	Yes	No
2010	1	2
2011	10	3
2012	1	5
2013	1	4
2014	2	3
2015	3	3
2016	1	1
Unique Respondents	17	17
Percentage Unique Respondents	50%	50%

- *Technovation led me to consider computer science which led me to take a CS class my freshman year of college which led me to majoring in CS which led to my career in software.*

- *I was exposed to many roles within tech while participating in Technovation Challenge. It showed me that I didn't necessarily have to be a traditional coder to work in tech and there were many other roles (PM, Engineering Manager, Architect, Technical Director) that existed that could be a better fit for me.*

- *It showed me that I had more options and basic logic skills. These skills I have used throughout my career and will continue to develop them.*

In part, this influence in career choices seems mediated through Technovation's influence on the alumni's education choices. As one alumna commented, *"Technovation was quite a while ago, but it did influence where I went to college, and that influenced the types of places I looked for work in."*

Half of respondents indicated that Technovation did not influence their career choices. Only one person provided an explanation stating that she was already in the field. Also, two alumni explained that their Technovation experience helped them decide not to pursue a career in tech. As one respondent wrote, *"I'm very glad I did it but I do not work in tech."*

Innovation: Alumni are launching their own organizations or contributing to new endeavors

While there are many ways to express innovation, our analysis focused on participation in endeavors that might lead to *technological and scientific advancement* (one of Technovation's collective impact goals). More specifically, we looked for examples of participation in new companies.

Nine out of thirty-six respondents (25%) have worked at start-up companies. One alumna was the *"11th hire and 6th engineer"* at her startup. Another has worked at two startups. She wrote, *"1st was a restaurant loyalty app, 2nd was a smart home energy monitor end-to-end hardware and software application."*

Three alumni have started their own company or organization which include: (a) a freelancer who runs her own business providing editing, writing, and reporting services; (b) a founder of an Asian American empowerment group at her university; and (c) a founder of an event planning and design company.

Leading: Alumni take leadership roles and influence peers mostly in school and the workplace

Nearly all alumni have been a leader in some way since participating in the program. Alumni were more likely to have been leaders in school or the workplace rather than in a community or religious setting. Similarly, alumni more frequently shared their opinions and influenced decisions within school and workplace settings (on average about once a month) compared to within community or religious settings (on average less than once a year) (see Table 13). Alumni also more frequently shared their views

Table 12. *Have you been a leader in any way? If yes, where?*		
Response	**Counts**	**%**
School	22	67%
Workplace	17	52%
Community	11	33%
Religious organization	3	9%
Other	3	9%
No	2	6%

with and influenced the decisions of peers than supervisors, managers, and teachers (see Table 14). Eight alumni (28%) said Technovation helped them develop these leadership skills. Seven (23%) said the program helped them learn to share their voice. And three (7%) said the program helped them develop skills in influencing the decisions of others.

Technovation gave me the confidence to be heard.

Table 13. *In the past year, how often have you contacted any of the following people about some important problem or to give them your views?*	
Response	**Mean**
Colleagues at work	3.26
Peers at school/university	2.58
Teachers at school/university	1.60
Leader in a community organization	0.73
Some other influential person	0.67
A religious leader	0.59
An official of a government agency	0.43
A member of the press	0.07

Table 14. In the past year, how often have you influenced the decision making of any of the following people or groups?	
Response	**Mean**
A peer at school or work	3.21
A manager or supervisor at work	2.93
A community organization	0.82
A community leader	0.64

Note: For both Tables 13 and 14, frequency options were *Never* (0), *Once* (1), *Less than once a month* (2), *Once a month* (3), *Once a week* (4) and *More than once a week* (5).

Alumni are more confident in teamwork skills than programming skills

One survey question asked alumni to rate their confidence in specific skills on a scale from *not at all confident* (0) to *extremely confident* (4). Table 15 presents the average confidence ratings grouped by those who said Technovation Girls helped them develop any of these skills and those who said it did not or they were unsure.

Table 15. *How confident are you in the following skills?*			
	Averages		
Skill	**All (n=20)**	**TG helped (n=15)**	**TG didn't help (n=5)**
Teamwork	3.25	3.53	3.40
Problem Solving	3.13	3.40	3.60
Making presentations and public speaking	2.88	3.40	2.40
Making an impact on the community	2.75	2.80	2.40
Selling, marketing, or persuading others	2.38	2.73	1.60
Computer Programming	1.75	1.87	2.80
Building and managing a business	1.66	1.93	1.60

We found on average alumni were more confident in teamwork ($\bar{x}$ = 3.25) than computer programming ($\bar{x}$ = 1.75). It is interesting to note that both teamwork and programming were frequently cited as "the most important thing" learned from the Technovation program. On average, alumni reported being somewhere between very to extremely confident in their teamwork skills. On the other hand, the average score for computer programming fell just short of somewhat confident.

A small number of alumni (n = 5) reported that Technovation did not help them develop these skills or that other resources helped develop these skills. On average these alumni had higher confidence in their programming skills than alumni who reported Technovation helped develop their skills ($\bar{x}$ = 2.80 as opposed to $\bar{x}$ = 1.87). One possible explanation is that Technovation did not play as large a role in developing their programming skills compared to other experiences they later had in college. As one alumna wrote, *"Technovation started my interest in programming, but much of it was something I learned in school. However, I do credit Technovation for letting me know that it was something that I could actually do."* Another alumna echoed this by writing, *"It helped with teamwork but not with the more technical skills, given that we used a graphical tool to build the app."*

Also, these five alumni reported a lower average confidence in both presentation/public speaking skills and skills of selling, marketing or persuading others. It may be that some of these alumni were generally less interested or less comfortable in the Technovation program. As one alumna noted, *"I felt uncomfortable with Technovation's focus on 'impacting the community'…it was just hard for me to wrap my head around and felt like too much pressure."*

Technovation in the Future

In large, alumni shared positive experiences of Technovation and expressed gratitude for the program. Many provided feedback on improving the program for future participants. Many also expressed interest in staying connected both with fellow Technovation alumni and by serving in program roles for future cohorts. Below we highlight general trends in their feedback. It should be noted that several recommendations have already been implemented since these alumni participated in Technovation Girls.

Table 16. *What aspects of Technovation could have been improved to better prepare you for your education or career?*

Program Area	Total	%
Curriculum	6	30%
Mentorship	4	20%
Program Length	3	15%
Alumni Network	3	15%
Earlier Exposure	2	10%
Judging and Feedback	1	5%

Recommendation 1: Expand curriculum and increase rigor

Technovation played an important role in exposing alumni to coding, but many said the curriculum was not enough to fully develop their coding skills. One alumna felt she held back her team because she did not have enough programming experience. Six alumni suggested making the curriculum more rigorous and two used the term "boot camp" to describe a more in-depth curriculum.

Recommendation 2: Provide training to mentors

Four alumni said that they would have liked more support from their mentor during their program experience. Some found their mentors unhelpful or *"focused on doing things the 'right' way instead of letting us explore."* Mentors experienced in computer science but new to teaching might benefit from training on how novices learn programming and pedagogical strategies for supporting their learning.

Recommendation 3: Extend the program length

Three alumni commented on the length of the program. Two alumni who participated in 2011 and 2012 said they would have liked a longer program overall. One alumna who participated in 2011, 2012 and 2013 suggested having more time to learn App Inventor. She wrote, *"I feel like there's not enough time to fully explore all the technicalities before jumping to building the actual product prototype."*

Recommendation 4: Maintain an alumni network

Three respondents who participated in 2010, 2011 and 2015 suggested providing more ways for participants to keep in touch. One alumna wrote, *"I will say one of the biggest benefits of Technovation and other programs for women in CS is building a network. So, having maybe a Facebook group for each class or for all Technovation alums could be useful."* While Technovation has since launched an alumni portal, it might be useful to reach out to participants from older cohorts to join the network.

Recommendation 5: Market the program more, especially to younger girls

Two alumni suggested opening the program to younger students. As one alumna wrote, *"I think if I had known about Technovation when I was still in primary, my life would have been better guided and I would have been in the tech industry way sooner."*

Six alumni were not aware of Technovation's presence or the presence of ambassadors in their region (i.e., Albany, NY; Chicago, IL; Jacksonville, NC; Zimbabwe; Pierce County, WA). They suggested the program might be expanded in their regions with:

- More marketing, particularly through regional social media and local events

- Online courses and bringing coding demonstrations to school classrooms

- Connecting with schools, colleges and universities

- Connecting with more women mentors in tech

Recommendation 6: Provide feedback for non-winning teams

Most alumni (n = 18) said they did not remember the judges' feedback. Among those who did remember, the majority (n = 13) found the feedback somewhat or very valuable. One alumna said she would have appreciated receiving feedback for teams who did not win.

Table 17. *How valuable was the feedback you received from judges during the Technovation Program?*		
Response	**Count**	**%**
I do not remember the judges' feedback	18	51%
I did not receive feedback from judges	3	9%
Not valuable	1	3%
Somewhat valuable	9	26%
Very valuable	4	11%
Total	35	-

Conclusion

I owe a lot to this program, I learned so much about myself and the tech industry. It really served as a foundation for a lot of what I've achieved in my academic and professional career since I did the program as a very impressionable high school senior.

Technovation taught me that I can do anything that I put my mind to.

Participating in the program was a confidence booster for me.

As the quotes above demonstrate, most respondents have fond memories of their Technovation experiences. For many, Technovation increased their self-confidence, exposed them to the world of tech and encouraged them to pursue STEM-related degrees and careers. Alumni have carried their leadership skills into their universities and workplaces and a handful have even started their own organizations and companies. More than half of respondents showed interest in supporting Technovation as a regional ambassador, team mentor or judge. Respondents provided evidence that Technovation is meeting the individual impacts targeted in its theory of change. It should be noted that only a small percentage of alumni participated in the survey, so these trends should not be seen as representative of all alumni.

I'm grateful to have been a part of the program and would like to do more.

Appendix: Survey Items

Technovation Alum Survey

Hello Technovation Alum,

Technovation is now entering its 10th year. As some of the first Technovation students, your feedback is important to us. We would like to hear about the journeys you took after the Technovation Program and whether Technovation had an influence on your education and career. Your responses will help us better understand how Technovation impacts students and how we can better design the program for future cohorts. This survey should take about 15 minutes to complete.

What will we do with your responses:

(1) Your responses will be collected by the Technovation team and shared with an external evaluator to help in analyzing the data.

(2) Access to your individual survey responses will be restricted to the Technovation team and the external evaluator.

(3) We may use excerpts of your open-ended responses in our promotional materials. Below we will ask for your permission to do so.

Thank you for your help,
The Technovation Team

Can we use your open-ended responses in our promotional materials?

◯ No

◯ Yes

Technovation Girls Alumnae Survey (2020)

Your Technovation Experience

When did you participate in the Technovation Program as a student? (select all that apply)

☐ 2010

☐ 2011

☐ 2012

☐ 2013

☐ 2014

☐ 2015

☐ 2016

☐ 2017

☐ 2018

☐ 2019

Where did you participate in the Technovation Program?

[⬍]

[ ]

Have you served in any of these other Technovation Program roles? (check all that apply)

☐ Student ambassador

☐ Regional ambassador

☐ Team Mentor

☐ Judge

Describe your Technovation Program experience in one word:

[ ]

What is the most important thing you learned from the Technovation Program?

[ ]

Technovation Girls Alumnae Survey (2020)

Education and Career

Next we have a few questions about your education.

Are you enrolled in college now?

◯ Yes

◯ No

What is the highest level of education you completed?

◯ Some high school

◯ High school

◯ Some college

◯ Bachelor's Degree

◯ Other (please specify)

◯ Master's Degree

◯ Doctoral (e.g., PhD, EdD etc)

◯ Trade school

Technovation Girls Alumnae Survey (2020)

Education and Career

What are the main reasons for not continuing your education after high school? (check all that apply)

☐ Distance, school too far

☐ Couldn't afford to continue schooling

☐ Did not get admitted to schools

☐ Had to take care of family

☐ Had to work

☐ Other (please specify)

☐ Did not want to study

☐ Health condition (disability/illness)

☐ Going to school was not safe

☐ Women in my community are not expected to continue their education

What field(s) did you study?

Did Technovation influence your education choices?

◯ No

◯ Yes

Please explain:

Next we have a few questions about your career.

What is your occupation, or what kind of work do you do?

Are you employed now?

◯ Yes

◯ No

Education and Career

Tell us about your current position:

Company

[   ]

Your title

[   ]

Experience Level (e.g.,
intern, entry level,
associate, mid-senior level,
director, executive)

[   ]

Job Industry

[   ]

What are the main reasons you are not employed? (check all that apply)

☐ Going to school   ☐ Taking care of children or others

☐ Unable to find work   ☐ Pregnancy

☐ Not interested in working   ☐ Women in my community are not expected to work

☐ Health condition (disability/illness)

☐ Other (please specify)

[   ]

Have you ever started your own company or organization?

○ No

○ Yes, please describe:

[   ]

If you have started your own company or organization, please share a link to your site:

[   ]

Have you ever been an employee at a start-up company?

○ No

○ Yes, please describe:

[text box]

Have you ever worked in the tech industry or in a tech related role?

○ No

○ Yes, please describe:

[text box]

Did Technovation influence your career choices?

○ No

○ Yes

Please explain:

[text box]

How valuable was the feedback you received from judges during the Technovation Program?

○ I did not receive feedback from judges

○ I do not remember the judges' feedback

○ Not valuable

○ Somewhat valuable

○ Very valuable

Please explain:

[text box]

Are there any aspects of the Technovation Program that could have been improved to better prepare you for your education or career?

[text box]

The Impact of Technovation

The Technovation Program aims to advance the confidence of young people so they can transform their communities through innovation, leadership and resilience.

In the next few questions, we ask you to reflect on your personal experiences after the Technovation Program related to these outcomes.

How confident are you in the following skills?

	Not at all confident	A little confident	Somewhat confident	Very confident	Extremely confident
Computer Programming	○	○	○	○	○
Building and managing a business	○	○	○	○	○
Teamwork	○	○	○	○	○
Problem Solving	○	○	○	○	○
Making an impact on the community	○	○	○	○	○
Making presentations and public speaking	○	○	○	○	○
Selling, marketing, or persuading others	○	○	○	○	○

Did Technovation help you develop any of these skills? Please explain:

Since Technovation, have you been a leader in any way? If yes, where? (check all that apply)

☐ No ☐ Church or religious organization

☐ School ☐ Community

☐ Workplace ☐ Other

Did Technovation help you develop your leadership skills? Please explain:

In the past year, how often have you contacted any of the following people about some important problem or to give them your views?

	Never	Once	Less than once a month	Once a week	More than once a week
Peers at school/university	○	○	○	○	○
Teachers at school/university	○	○	○	○	○
Colleagues at work	○	○	○	○	○
A religious leader	○	○	○	○	○
An official of a government agency	○	○	○	○	○
Leader in a community organization	○	○	○	○	○
A member of the press	○	○	○	○	○
Some other influential person	○	○	○	○	○

Did Technovation help you learn to share your voice? Please explain:

In the past year, how often have you influenced the decision making of any of the following people or groups?

	Never	Once	Less than once a month	Once a month	Once a week	More than once a week
A peer at school or work	○	○	○	○	○	○
A manager or supervisor at work	○	○	○	○	○	○
A community leader	○	○	○	○	○	○
A community organization	○	○	○	○	○	○

Did Technovation help you develop skills in influencing the decisions of others? Please explain:

Since Technovation, have you received any awards or recognition from your school, workplace or community?

○ No

○ Yes, please describe:

Technovation Girls Alumnae Survey (2020)

Staying in Touch with Technovation

In which country do you currently live?

[▲▼]

[   ]

How old are you?

[   ]

Can we contact you to conduct an interview to hear more about your experiences?

○ Yes

○ Maybe, please send me more information

○ No

Are you interested in serving as a regional ambassador, team mentor or judge?

○ Yes

○ Maybe, please send me more information

○ Not at this time

How might we better expand the Technovation Program in your region?

[   ]

Please let us know how to connect with you:

Name	[ ]
Email	[ ]
LinkedIn	[ ]
Twitter	[ ]

Is there anything else you would like to add?

[   ]