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KEREN HAYESOD קרן ה'יסוד
FOR THE PEOPLE OF ISRAEL

Mid -Year Report

Net@ Technological Youth Movement: Creating Israel's High-Tech Generation



70 years of achievements
powered by Keren Hayesod

Mid -Year Report September 2018 – January 2019

Dear Friends and Partners,

We are pleased to present you with the **Net@ Mid-Year Report**. The Net@ Technological Youth Movement impacts Israel's next generation of high-tech leaders and encourages leadership and self-confidence amongst its participants. In 2019, Net@ impacted Israeli youth in the following ways:

Net@ by Numbers in 2018

- ◇ **Total Net@ participants for the year: 1,800**
- ◇ **Over 5,700 hours of technological training**
- ◇ **115,000 volunteering hours**
- ◇ **1 new locations**

All of these achievements would not have been possible without our partnership with **Keren Hayesod**, which enables the program to expand both in the number of locations and beneficiaries. Other partners include Cisco, Microsoft and Bezeq, which provide cutting-edge technological content for the four-year Net@ program, together with other partners, including government institutes, local municipalities, high-tech companies, and businesses.

Thank You for Your Support!

About the Net@ Technology Youth Movement

Net@ is a four-year program that offers disadvantaged youth an opportunity to gain advanced professional and technological skills, preparing them for higher paying future positions in science and technology-related fields and equipping them with the knowledge to meet the growing demand for skilled employees in the Israeli high-tech industry. Net@ is designed to promote excellence in technology and social leadership. The program creates opportunities for teenagers (grades 9-12) from Israel's social and geographic periphery. Participants are trained in marketable computer skills and become certified computer and network technicians. Social values, personal and communal responsibility, leadership, pluralism, equality, and volunteerism are also important components of the curriculum. The program's 58 instructors work with over 1800 young people in 20 communities across Israel each year.

Net@Junior –a preparatory Net@ program for kids aged 10–14, which introduces them to the world of programming. The goal is to provide students with real experiences in the field of software, design and entrepreneurship; while giving them opportunities to practice skills that are important in startups, such as teamwork and joint planning. The use of English is encouraged in order to strengthen their language skills.

"Net@ is so much more than a technology project- we are learning to be better people and expand our horizons. Most importantly I have learned to believe in myself and never give up."
~Net@ Participant

Participants in the Net@ program meet twice a week. The curriculum is based primarily on Cisco Networking Academy courses, where students can train in three areas: PC Technician, Network Technician, and Web Design. Through their involvement in the program, the participants develop independent learning and study skills while gaining knowledge about computer hardware and software, website design, and programming languages, all with an emphasis on practical, hands-on work experience. All aspects of the Net@ curriculum utilize technology as a means to promote personal empowerment among participants while breaking through geographical and social boundaries.

Net@'s educational curriculum rests on two main pillars: **advanced technological skills training and social leadership**, both of which combine four key themes:

- Personal excellence
- Social activism
- Global responsibility
- Tolerance and pluralism

Tech Meetings and Lessons

In the four-year program, participants are trained in an array of advanced technological courses. In their first year, participants attend sessions twice a week for four hours at a time with the last half hour of each meeting devoted to personal conversations and check-ins with the participants. From the second year until the end of the program, participants attend meetings once a week for four hours.

Practical Internship

The Net@ technological curriculum is complemented by practical training that combines hands-on experiences to enrich learning. Students can choose one of the following tracks to enhance their tech skills:

- **FIXIT** is a network of computer repair labs for the benefit of the community. The labs allow low-income clients from the community to enjoy computer repair and support services at a subsidized cost. The participants who volunteer in the lab run it as a business. It has a lab director, marketing directors, shift managers, computer repair technicians, and customer service. Participants engage in experiential learning by repairing computers and gain entrepreneurial skills by running the lab as a business. The labs contribute to the community and the participants' theoretical knowledge is cemented by their real-time hands-on experiences. FIXIT team members also make on-site visits to community members and organizations (20-30 sites annually).
- **Youth Training Youth** – senior Net@ students underwent special training and became youth trainers for Net@ Juniors.
- **Social Entrepreneurship** – students formed and worked in teams that were responsible for identifying and executing social projects that involved giving back to the community by using their technological know-how. Typically, these projects can range from building a website for the local municipality, installing PCs in kindergartens or initiating technological activities in schools.

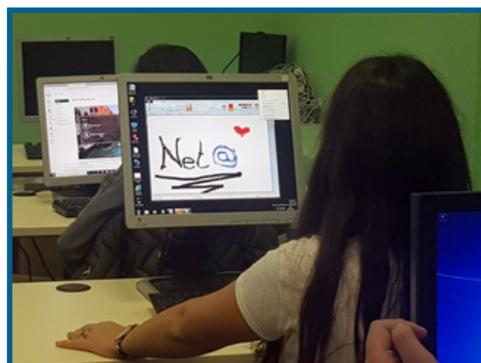
Net@ Highlights

Net@ Milan

Congratulations are due! The Net@ program has opened its first international groups! As a result of the cooperation between Keren Hayesod, the Jewish community of Milan, the Jewish community of Milan, and the Appleseeds Net@ program, two Net@ groups have opened in Milan.

The instructors of these groups, who are all alumni of Net@ Eilat and Net@ Dimona, are shin-shins (who volunteer for one year before their military service). The Delegations Department of the Jewish Agency recruited and trained the instructors for their service abroad and continues to accompany them and to see to their needs. Net@ supports them by providing the content and training them as effective instructors.

We have brought the combined experience of the Net@ youth movement together with technological training in computer programming and as computer technicians to Jewish teenagers in Milan where we have also implemented our programs for practical experience and empowerment, namely, the Young Trainers program, the Entrepreneurship track, and the FIXIT Lab program:



- In December, we were delighted to host a group of Net@ participants from Milan for joint activities with Net@ Ramla.
- The Net@ Milan group and their instructors are delighted to have opened a FIXIT lab in Milan. Like those in Israel, the lab is run by volunteers who fix computers for the community.
- 12 new instructors for next year are currently being recruited by the Jewish Agency. Those selected will serve one year as volunteers in the Jewish community.

Net@ for Special Needs

For the first time this year, in Net@ Ashkelon, we opened a group for nine participants with special needs (such as communication problems, autism and other challenges). They are all in special education programs in their schools. At Net@ they are integrated in other groups but also have their own group. Instructors in these groups are assisted by volunteer Net@ participants.

We have been extremely moved to see the extent to which these children are accepted by the other children and how they also participate in national Net@ events such as hackathons and camps.

Many of the parents of these children often join their activities and events, giving both generations the unique opportunity to experience events together and learn from each other.

Programming at Net@:

The Net@ participants have started programming to develop games using Unity, the digital platform for creating games including both code and graphic elements. Programming is done in the C# language, which allows programming by means of object-oriented methodology. On the other hand, it allows control of the game. This combination allows participants to create a product at a high level of complexity and design. Planning games is a process that requires participants to acquire and further develop technical skills such as describing the technological implementation of an idea for a game, planning the various stages of the project, the design of the user interface and the user experience (UI/UX), problem solving, and more. Net@ participants also enhance various soft skills such as team work, receiving feedback, and time management. The program consists of three main components: getting to know the Unity system, basic programming and object-oriented methodology, as well as planning and developing the games.

Net@ Entrepreneurship Program:

Approximately 180 Net@ participants chose to join the Net@ Entrepreneurship Program. Most of these participants also took part in entrepreneurship training program in the summer.

This is one of three tracks in which Net@ participants are in charge of a particular topic that combines their technological orientation and the social activism that constitutes an integral part of Net@'s educational philosophy. The students in the entrepreneurship track meet once a week at the Net@ center in each community. The sessions are run by the Net@ coordinator or one of the recipients of the Impact! scholarship program.

This year the field of entrepreneurship—including entrepreneurial language and discourse—was firmly established as part of the Net@ program and implemented in all the towns where there is a branch of the Net@ program. Net@ participants are not just project managers. They gain real experience as entrepreneurs!

Net@ Events

Girls' Hackathon

The Girls' Hackathon took place on 20 November 2018 in the offices of Natural Intelligence in Tel Aviv. 18 girls from Net@ Kfar Saba, Ramla, and Tel Aviv took part in this Hackathon.



The activities included:

- An introduction to the company and what they do, including a video.
- A seminar about women leaders in Israel and in the world, in two groups led by two Natural Intelligence employees (both of whom were women),
- A panel of six women who work at Natural Intelligence. Each of the women talked about herself and her position at Natural Intelligence, the skills required for her position, how she got this job, and what girls should learn so that they can follow a similar path in the future.
- A tour of the Natural Intelligence's offices.

Coexistence Seminar

This three-day seminar took place at the Israel Goldstein Youth Village in Jerusalem over a weekend in December during the Hanukkah holiday. There were 76 participants (65% Arab Israelis and 35% Jewish Israelis) from Jerusalem, Carmiel, Nazareth Illit, Beer Sheva, Jisr a'Zarka, Hura, Ramla, and Kfar Saba. Activities included icebreakers to allow participants to get acquainted, activities related to their identity, outdoor adventures, and seminars on leadership and social responsibility. All the participants took part in Hanukkah candle-lighting ceremonies, Kabbalat Shabbat and Havdalah and were also exposed to Christian and Moslem prayers.



Shorter Coexistence Meetings

Four coexistence meetings were held for 9th-10th grade students. These three-hour meetings take place throughout the year and involve two or three towns. Usually, 50% of the participants are Arab Israelis, while the other 50% are Jewish Israelis.



Each of the following meetings had a different focus and also included games to allow participants to get to know one another, as well as a meal (ordered by Net@).

- **November 11, 2018** – Kfar Saba and Tira - A lecture about Space IL
- **November 29, 2018** – Yarka and Carmiel - A visit to a planetarium located in Yarka and a lecture about Space IL
- **January 1, 2019** – Jerusalem, Dimona, and Hura - A Master Chef competition in which participants cooked together (see photo below)
- **January 3, 2019** – Ashkelon, Um El Fahm, Tel Aviv, and Ramla - A lecture about Space IL

Joint Technological Activities:

During the visit of members of Net@ Milan in Israel, they met with members of Net@ Ramla. This three-hour meeting at the hub in Ramla began with an introduction to Appleseeds Academy and the Net@ program, followed by social activities to break the ice and to allow participants to get to know one another. They then participated in a seminar on graphic design. The meeting was concluded with a tour of the hub and the Appleseeds Academy offices.

Net@ Leadership Seminar:

The leadership seminar for fourth-year Net@ participants, took place in Jerusalem during Chanukah. 35 participants from all over the country participated in innovative technological workshops along with leadership workshops on topics such as Israeli society, how to generate social mobility, group leadership, social equality and social responsibility. The seminar helps to solidify their leadership skills and prepares them for a meaningful year. Net@'s final year is a project-oriented one in which participants have the opportunity to actively use the knowledge and expertise they gained throughout the program.



Participants also met with IDF representatives who told them about options for serving in the IDF's technological units and with members of the Ma'asa organization who talked to them about volunteering at Net@ for a year after they complete high school.

Practical Expertise Seminar

Our five-day Practical Expertise Seminar took place this past summer. The students were trained on one of the three specialties that will serve as their main Internship experiences which include: Social Activism/Entrepreneurship, Young Trainers, and FIXIT Lab Technicians. All of our students were trained by senior students from the program and were taught advanced tools to execute and accomplish tasks in their specialty field in the future.

Night Hakathon in Eilat

The Night Hackathon is the opening of the Smart City Hackathon program which is planned to continue until Demo Day for Smart Cities, to be held at the beginning of April in Eilat. The Night Hackathon took place at Net@ Eilat on January 31 and was the beginning of the Smart City Program sponsored by the Eilat Hub, Appleseeds Academy and the Net@ program, Eilat Municipality, and the Ministry of Science and Technology.

The Night Hackathon included the following:

- An introduction and survey on the topic of Smart Cities
- A presentation of urban challenges for the city of Eilat, such as the following:
 - Tourism: How to get tourists to come to Eilat in the winters and to increase the number of tourists, the tourist in the city, and how to support both Air B&B rentals and hotels
 - Transportation: Mobility, the challenges posed by electric bicycles, and encouraging public transportation
 - Environment: Reducing the use of plastic and how to save water when irrigating parks
- Participants divided up into groups, chose a specific challenge, and talked about possible ideas
- A panel of mentors helped each group by giving tips.
- The presentation of all the ideas and solutions suggested by the groups. Each group will work on an idea and a solution to a problem to be completed by Demo Day for Smart Cities, where a winning project will be selected, and prizes will be awarded. The winning ideas will be implemented in the city of Eilat.

Coming Soon...

Safe Internet Week:

This event began at the beginning of February and is still ongoing. It includes a whole range of activities in various locations all over the country:

- 9th-grade Net@ participants give one lesson that include a variety of activities in school classes (from 3rd to 9th grade) and to other youth movements on such topics as privacy on the web, tips for surfing safely, and cyber bullying. This also serves to give the Net@ participants experience in delivering various activities, so that they can later decide if they want to continue being instructors at Net@,
- Activities for parents in the evening given by professional instructors who talk about what parents can do to prevent the risks inherent in the internet, and what they can do if they find out that something has happened (for example, call 105, which is the new dedicated police hotline for reporting such cases)



Good Deeds Day:

Net@ always takes part in Good Deeds Day (April 2, 2019). One month before the event, the Net@ center in each town decides on their good deed. Examples of such deeds are visiting sick kids in the hospital, or joining such local initiatives as painting or cleaning up various neighborhoods.

Junior Hackathon:

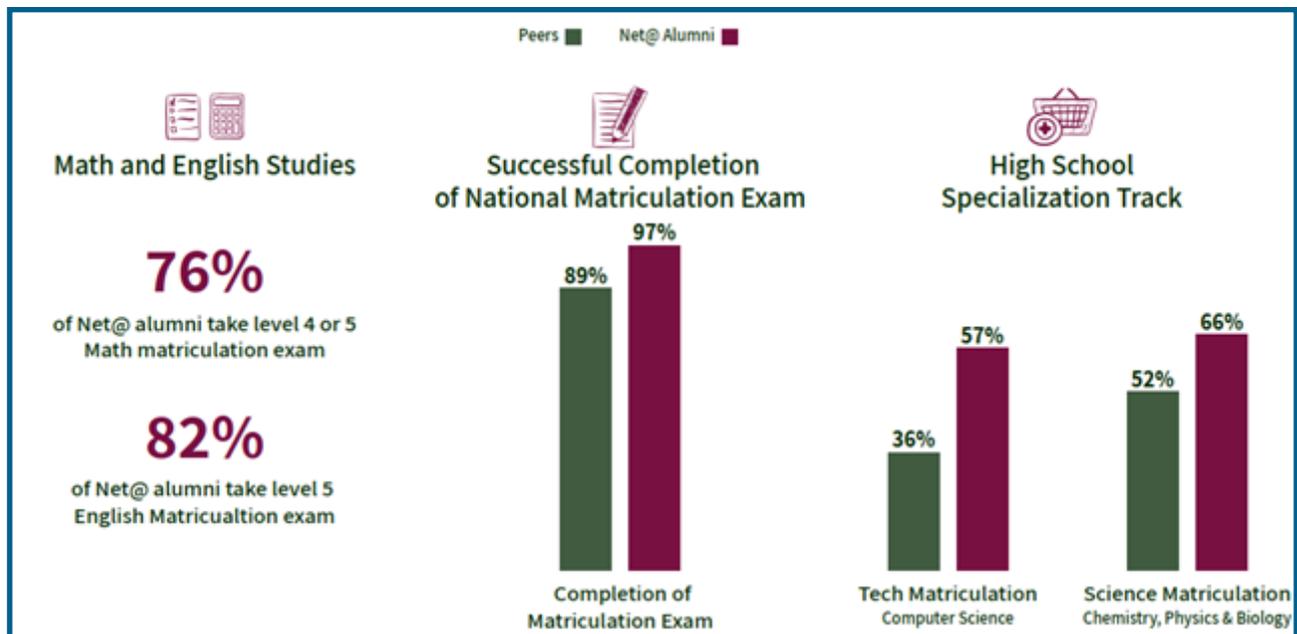
The Junior Hackathon will be held in June 2019 for 5th - 8th grade Net@ participants. It focuses on a social topic but also includes lectures and workshops on applying technology to create products on this topic, such as creating comics on tolerance using the Canva platform.

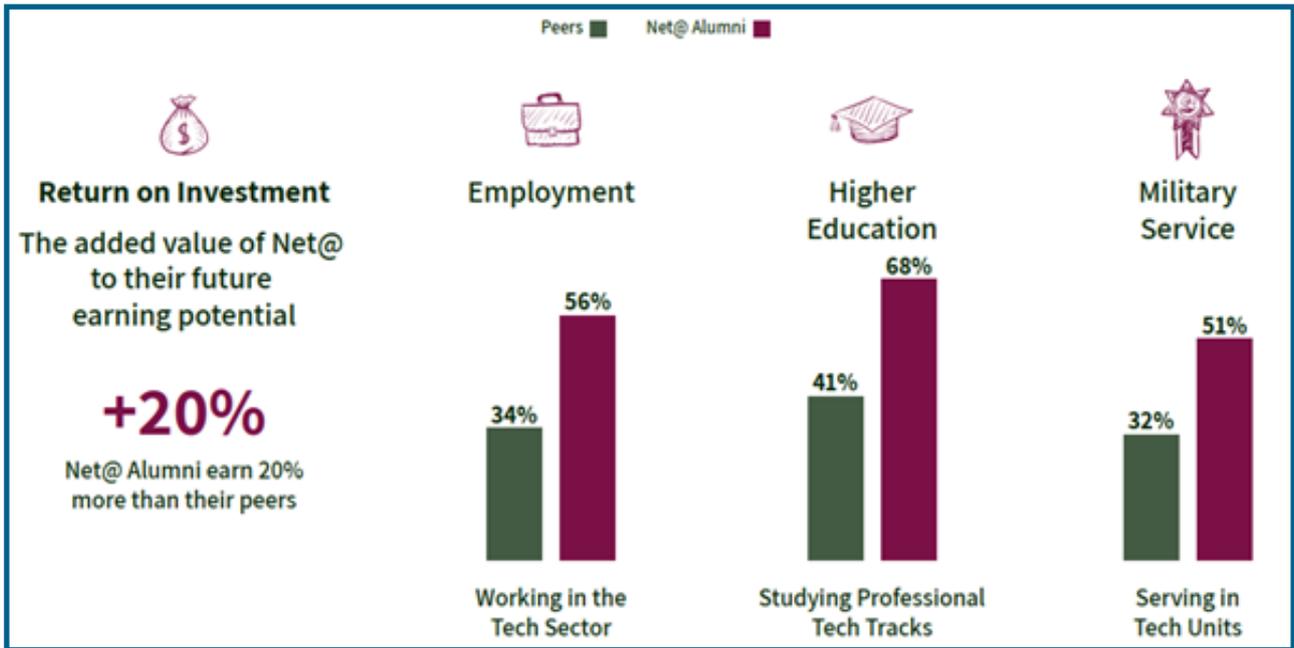
Entrepreneurship Hackathon:

The Entrepreneurship Hackathon will be held in May 2019 at a high-tech company. There will be a lecture on technology and the groups will present the project that they have been working on all year.

Net@ Impact

Net@ paves the way for youth from disadvantaged backgrounds to achieve academic success, to be accepted to elite technological units in the IDF, and ultimately meet the growing demand for skilled employees in the Israeli high-tech industry, thus achieving greater economic security in the future. 97% percent of Neta@ alumni obtained a complete matriculation certificate compared to their peers. The figures below illustrate additional aspects of the impact of the Neta@ program.





Net@ program prepares graduates to choose technology at the most important life-stages: high school, as volunteers before their military service and in the IDF, their choice of academic majors, as well as their to professional pursuits.

At every one of those junctures, Net@ alumni choose technology 60% more often than their peers and earned 20% more than their peers in full-time work.

Meet Lara From Beer Sheva

The Net@ program has clearly had a significant effect on Lara from Beer Sheva. She was born in Argentina and immigrated to Israel together with her parents and brother when she was nine years old. She is now 28 years old and has joined Israel's high-tech industry.



Upon her school's suggestion, she first joined Net@ when she was 14 years old, even though she didn't really know what it was, and ended up staying for four years. When asked what Net@ has given her, she said that apart from a knowledge of technology, she made many friends in the program and met kids from all over the country whom she would not have met otherwise. She also said that her English really improved since they read everything in English and often had the chance to talk to kids visiting the program from abroad. She noted that her confidence improved dramatically. The photo below shows Lara with some of her friends at Net@.

In her military service in the IDF, she served in an intelligence unit where she applied many of the computer skills she had acquired at Net@. Upon completing her service, she studied geography at Ben Gurion University. The program there required understanding and using Geographic

Information Systems (GIS). As a student, she became an instructor at Net@, functioning both as a social and technological instructor for 10th and 11th grade Neta@ participants, where she taught them how to manage network systems and such skills as public speaking and getting to know and communicating with people who are different from us. For example, as part of a project on tolerance, they initiated a campaign about people with disabilities, which including making dedicated posters. In addition, one of her groups had an ongoing collaboration with a group in Poland, with whom they communicated on Skype. As an instructor, she even flew to Poland with a group of participants. The purpose of the whole series of activities in Poland was to get to know one another's culture. The Polish and the Israeli groups together put on a play about differences between them. The event was attended by the whole community!



Lara later trained instructors and held many other positions at Net@. For the last few years she has been working in the high-tech industry in Beer Sheva, first at several startups, and now at Moovit (see photo below), which is now well-established. The company's main product is a navigation app for public transportation. Lara is a member of the geo-data team and works with the databases used for the application and for research on transportation.