GELP ISRAEL 2019

ANTICIPATING THE FUTURE: LEADING EDUCATION TRANSFORMATION REPORT

GELP ISRAEL | 4-6 MARCH 2019
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“The purpose of this conference, to me, is not to discuss about how we improve the education system, but how we create a better one … We need to take our best ideas, our strongest intuitions and create a new platform of education … I dream that school in the future will be an open and safe environment where students can explore their wishes and needs, ask questions and have independent choices about their lives. I dream that kids will feel safe and welcomed by everyone around them – no matter what. I dream that failure won’t be the end of the world, but an opportunity to learn something new.”

Liel Malkevich, Head of the National Council of School Students in Israel

INTRODUCTION

On March 2019, a group of 100 education leaders and innovators from 13 countries, 5 continents gathered together in Israel, the start-up nation, to exchange experience, knowledge, methodologies and practices and to co-create something that would make a considerable impact and add to the work being done around the world on transforming education. The event was led by GELP, Mifras Educational Entrepreneurship Incubator, and partners from the Lautman Foundation, the Israeli Ministry of Education, the Trump Foundation, Zurim, and the Daniel Foundation.

50 leaders from around the world and 50 leaders from Israel, represented a wide range of organizations, government offices, NGO’s, educators from the field who are also system leaders, students, teacher training institutions, school chains, academics, educational entrepreneurs and innovators and more.

The convention is part of a series of GELP events around the world and thus was based both on local Israeli experience, knowledge and innovation from Mifras, and many other distinguished partners, and on those developed and practiced by the GELP community over the years. This document captures the essence of GELP ISRAEL 2019, starting with anticipating the future of our world and societies and the thriving of humans in our times; following on with the tremendously complex challenges of learning and education within this context, mainly excellence and adaptivity. It then elaborates on the notion of Learning Ecosystem as a new emerging framework for learning, and the ways to achieve system transformation to allow much-needed disruptive innovation in education.

As the convention was built on the knowledge and experience of the participants, we were all contributors. Some discussions were triggered or led by experts and practitioners from the different countries and organizations and guests from Israel representing the local challenges for the education system and the local innovation ecosystem.

Thus, this report reflects the unique structure of the convention, capturing core understandings and highlights from panels, sub-group presentation and discussions, field experience, and other contributions. In many cases, contributors reflected different perspectives, angles and points of view creating a rich collection of ideas and key questions to be discussed. See appendix for full program and key contributors’ details.
The current and future world needs people who can thrive in the 21st century: become happy and satisfied local and global citizens. People who contribute, who are responsible, adaptive and pro-active – socially, economically and environmentally; people who are excellent not only academically, in traditional knowledge and skills, but also in human, personal, interpersonal, intercultural aspects of the “greater good”.

Based on OECD global surveys and other studies worldwide, most current school systems fail to deliver education that meets present and future challenges.

GELP Israel 2019 sought to contribute to bridging this gap between the real and the ideal.

Current challenges require new forms of education and enabling systems, environments, policies, hierarchies (and more).

Beyond challenging traditional teaching forces and partners, these new forms should erase the limits of where learning happens and how it is conducted, orchestrated, integrated and assessed.

Learning Ecosystems can be the focus of our discussion as an alternative platform where the above limitations are partly or fully removed, and in which different operating models can exist.

Steps toward different models are already being taken around the world, and these are emerging into local Learning Ecosystems and allowing the development of a global knowledge ecosystem that will support the development and dissemination of additional current and future models. Members of our GELP community are taking major steps to develop and implement different models of Learning Ecosystems in various jurisdictions. We see our role as a professional community to look deep into these models, in order to learn, assess, integrate and process the knowledge they offer so that we can facilitate the implementation of more and more local and global operating models. We also intend to maintain and expand the practical and theoretical development of this global knowledge base - collecting and creating knowledge that can keep the process going effectively in the ever-changing reality in which we live.

About Mifras, the Israeli co-organizer of GELP Israel 2019: A non-profit joint venture with the Israeli Ministry of Education. Mifras has been working since 2012 to empower educators’ own intrapreneurship alongside developing an intrapreneurial culture at school as a sustainable infrastructure for long-term entrepreneurship and innovation. On a more systemic level, Mifras supports the Ministry’s development of intrapreneurship enablers to enhance impact and improve national level outcomes.
CHAPTER 1
ANTICIPATING THE FUTURE
AND THE RESULTING EDUCATION CHALLENGES
Considering the world we know and anticipating the unknown future given the globalized, digital world, the four main themes that emerged on this issue are:

1. **TRANSFORMING LEARNING** - to better serve the thriving of children and young adults as well as our planet and humanity - in the present and in the future, shifting learning from memorization to elaboration and problem-solving strategies, from teaching knowledge to eliciting meaningful questions, and shifting attention to the acquisition of soft skills such as communication and collaboration that are so essential in the 21st century.

2. **ACHIEVING LEARNERS’ EXCELLENCE** - this refers not only to academic achievement, particularly in the realm of STEM studies, but also in the human values of democracy, inclusion and equity, empowering educator agency and entrepreneurship, and assuring equal opportunities for children to excel, whatever their background.

3. **ADAPTIVITY** - this refers not only to passive adjustment to changes around us, but also to proactive adaptivity - initiative and entrepreneurship; generating agency both to cope with emerging new realities and environments and, no less importantly, to dare to design such new realities and environments.

4. **ENVISIONING FUTURE SCENARIOS** - utilizing existing resources together with imagination to create alternative future scenarios for education and training and what the implications might be for the various stakeholders involved.

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**TRANSFORMING LEARNING**

The foundations for our discussions were set by Mr. Andreas Schleicher, Director for the OECD Directorate of Education and Skills. As he pointed out, from the OECD macro perspective, one of the biggest risks we face is that half of the jobs in the industrialized world are potentially automatable, because the things that are easy to teach and easy to test are also the things that are easy to automate, digitize and outsource. Although we know that children learn best when they find solutions on their own, much of their learning today still involves memorization and recall, which are less effective when problems become more complex and require the application of higher-order thinking, elaboration, and the linking of new concepts to prior knowledge. Youth and adults alike already need soft skills in order to thrive, and will need them even more so in the future. Education must address knowledge, skills, attitudes, and even states of mind. Learners must be taught to think like a historian rather than memorize historical facts, think like a philosopher rather than just study philosophy. They must learn how to live and act in the VUCA world. This means that people must be able to create their own compass, make practical and ethical judgments, navigate ambiguity in regard to dilemmas, take responsibility, ask questions, observe, interact, reflect, and manage the massive flow of knowledge transformation.

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**An Israeli Perspective**

"The education system in Israel is actually divided into four systems. We must ask ourselves: What tools and skills should our children receive from the education system in order to grow up to be citizens who understand the society in which they live so that they can cooperate with each other to ensure a thriving Israeli economy?"

From the speech of Israel President Reuben (Ruby) Rivlin at the 2016 Herzliya Conference
When fast gets really fast, being slow to adapt makes education really slow

<table>
<thead>
<tr>
<th>Industrial systems</th>
<th>World class systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Some</strong> students learn at high levels (sorting)</td>
<td><strong>All</strong> students need to learn at high levels</td>
</tr>
<tr>
<td>Routine cognitive skills</td>
<td>Curriculum, instruction and assessment</td>
</tr>
<tr>
<td><strong>Complex ways of thinking, complex ways of doing, collective capacity</strong></td>
<td></td>
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<tr>
<td>Standardisation and compliance</td>
<td>Teacher education</td>
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<td><strong>High-level professional knowledge workers</strong></td>
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<tr>
<td>‘Tayloristic’, hierarchical</td>
<td>Work organisation</td>
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<td><strong>Flat, collegial</strong></td>
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<tr>
<td>Primarily to authorities</td>
<td>Accountability</td>
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<tr>
<td><strong>Primarily to peers and stakeholders</strong></td>
<td></td>
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</tbody>
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When fast gets really fast, being slow to adapt makes education really slow.

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OECD LEARNING COMPASS 2030

- Student agency
- Co-agency with peers, teachers, parents, communities
- Well-being 2030
- Knowledge
- Attitudes
- Volume
- Transformation competencies
- Care obligations
- Interconnection
- Reflection
- Action
“Excellence is a choice, not a chance. It is a result of high intention, sincere effort and intelligent execution.”

Aristotle

As we look forward in the 21st century, we should ask ourselves if we are satisfied with the ancient Greek and Renaissance concepts of well-rounded excellence; a concept that included mathematics and philosophy (mind), gymnastics (body) and music and the arts (soul). Or must we adapt the way we think about excellence to the changing characteristics of the current era?

**Excellence: The wider definition** The discussion surrounding the theme of excellence, led by GELP co-chair Anthony Mackay, raised four different perspectives which expand the classical view of excellence in education, which has often focused on academic achievements. These perspectives are shown in the figure below.

- **STEM EXCELLENCE** Focusing on 4 languages: local, English, computer and math to match the thriving of individuals and nations.
- **THRIVING CHILDREN** and youth as a prerequisite for excellence.
- **EDUCATOR INTRAPRENEURSHIP FOR AN EXCELLENT SYSTEM** Initiating and leading ongoing system innovation and relevancy.
- **HUMANITY AND HUMAN VALUES** Educating for democracy, social cohesion and equity.
Eli Hurvitz (Trump Foundation) was the first to mention the fact that Israel is proud to be known as the ‘startup’ nation, even though many people are still trying to figure out what formula has enabled this. Israel does not do well in PISA, but its economy is very strong. What is clear is that to support a continued status of ‘startup nation’ the pipeline of excellence must be thickened. On the understanding that math is a key domain, and in light of unimpressive PISA scores, Israel's Ministry of Education increased resources for math education and reversed the trend. Data for 2018 are encouraging, with more women and Arab students passing the advanced level (5-point) matriculation exam. And yet, STEM education must be further strengthened for these two populations as insufficient numbers of them are found in engineering studies and high-tech employment. Particular attention must be paid to children of middle school age to ensure engaged learning and minimize the development of learning gaps during these crucial years. The importance of highlighting STEM education, particularly in middle school, and making sure to enable inclusion of more vulnerable populations is relevant in every country seeking to raise its level of overall excellence. Following Eli's opening Prof. Eugene Kandel (Start-up Nation Central) suggested recognizing that there are, in fact, two economies: The old industrial "on the ground" economy and the new digital/virtual economy. Sadly, at the moment they are completely disconnected, and it is not yet clear how you build a nation that supports both. The challenge is to prepare people to work in both economies. To this end, education systems must make sure students know four languages: math, English, the local language, and computer language. All the rest can be acquired in different ways that fully engage the learners. The challenge will be to have all stakeholders change at the same time. It is already hard to find tech talent that also possesses 21st-century skills. The challenge lies in the lack of opportunities for school and academia students to develop these skills. There is awareness, but for the most part, large schools systems have not yet been able to meet the challenge. Greater multidisciplinary might be a key factor. After all, Pythagoras combined music and math. Math in conjunction with other domains can change the world. Dr. Hank Nourse (New York Academy of Science) continued to focus on the importance of STEM but also emphasized the importance of 21st-century skills for the practice of STEM oriented work. In modern economies, an estimated 75% of jobs now require some degree of STEM skill. Employers desperately need talent with both technical and 21st-century skills such as collaboration, communication, and critical thinking. While traditional forms of education do not provide sufficient opportunities for students to build 21st century skills, instructional practices that promote active learning, such as project- or problem-based learning, are addressing this gap to a certain extent by challenging students to apply both knowledge and these soft skills to real-world scenarios.
Yael Neeman (Lautman Foundation) suggested that individual excellence is not enough. People cannot thrive alone nor can they do so when surrounded by others who are not thriving. Societies are becoming increasingly global and diverse and so building our world on democratic values and striving to achieve social cohesion are necessary elements of human excellence. Today’s children must develop respect, empathy and tolerance as an integral part of their excellence. These skills are crucial for building a democratic society. Israel, though such a small country, is highly complex, with four almost completely segregated educational systems, so that children who live in physical proximity may exist within very different ecosystems. Multicultural awareness in and of itself is not enough. The question is how you educate for social cohesion so that excellence can be achieved. Our human tendency is to dislike people from other groups. Thus, we all have to work very hard to instill democratic values systematically for all age groups.

Dr. Bat Chen Weinheber (Mifras) elaborated on the issue raised by Dr. Schleicher – the challenge of successfully managing change and scaling innovation emerging from the schools, based on principals’ and teachers’ intrapreneurship, using Israel as an example. Math comprehension is important, but proactivity, generating solutions and driving continuous and effective change are no less important as qualities of excellence. We have to rethink top-down reforms which, however well-intentioned, have failed over the years to make the desired change. In Israel education is highly centralized. Principals have only limited autonomy. Since large bodies are naturally less adaptive and flexible, for 21st-century excellence to truly flourish, the field must be a central player. Mifras’ experience as an Educational Intrapreneurship Incubator shows that educators must be the ones to initiate the excellent solutions bottom-up, with the right support from the community, the ministry, etc. It is less about what should be taught and more about how you should manage the change with greater stakeholder engagement.

Israeli education is working with an old machine that needs to be extensively revamped on three levels.

1) Individuals should be encouraged to take more responsibility, to feel that they are allowed to want, believe in, and feel capable of actually changing the system, without being hampered by the prevailing culture of constant measurement.

2) A culture of entrepreneurship among both teachers and students should be nurtured in terms of skills, motivation and opportunities.

3) Supporting initiatives themselves – generating more innovative ideas.

Applying this model at different levels of the system, we believe, will enhance the rate and scope of successful change and hence enable an excellent system.
Vishal Talreja (Dream a Dream) pointed out that there are so many expectations from the child in the discussions about education, but no discussion about children can ignore the challenge of child adversity.

So many children are still unable to follow the paths of excellence, living in poverty, lacking food and care. This, of course, impacts their ability to grow to be excellent, and so they won't be part of this future. This is a crisis of millions. Thriving starts with first owning and finding dignity in our stories. Owning where we come from is key in the 21st century. **We can flourish when we create environments of care, acceptance, validation and respect.**

Flourishing is the new way of being in the world which is more expansive than traditional definitions of economic success. Flourishing is not just limited to the individual but encompasses the family, the community and the planet as a whole.

Following the panel presentations, comments from the floor related to the fact that we need to look further, to 2050, and must relate to possible scenarios of global warming and such. Leaving the discussion at the cognitive level is insufficient; it is necessary to develop the capacity of love and connection. Our civilization might not survive and we need to address this basic concern of how to survive as a civilization. We must reform what we evaluate in terms of competencies and how we evaluate. Moreover, the path to excellence starts with the question of who you are, especially among minorities. The question of identity should be addressed in curricula. Finally, we need to talk about how we adapt teacher training and how we develop the next generation of teachers to meet the new goals of education.

Concluding the discussion of excellence, Andreas Schleicher (OECD) echoed that the notion of excellence is very important, but we don't yet know how to meet excellence with equity. Change and excellence in education requires role-models. We need to create education systems that are adaptive and versatile as we do in other systems. We need to find the right balance between cognitive, social and emotional skills; to create agencies and co-agencies, and infuse the system with more lateral thinking and working to offset the traditional hierarchical thinking that has been characteristic of ‘factory-mode’ education.

**We need to supply agile, continuously changing learning cultures and systems not only for our students but also for our pre-service and in-service teachers – no longer a ‘one-size-fits-all’ model of teaching.**
Meeting the educational challenges above, considering the complexity of our current and future realities requires adaptive humans and frameworks. The following content brings forth the ideas drawn from leaders and experts in adaptive contexts. Allowing each of us to learn about how we might develop our own schools or learning organizations to be more adaptive in the face of an uncertain and challenging future. Becoming adaptive means being able to constantly change, reinvent, initiate and innovate.

In the 21st century, nurturing people to be adaptive must play a vital role in educational settings, and can only be achieved if the setting itself has developed to be adaptive, and is part of a broader network or national system that also has adaptive features.
Many education sectors have lived with rapid change for some time. What can we learn about how diverse education systems are developing their workforce and young people to be adaptive?

The insights below are based on the experience of leaders of ventures focused on adaptive humans, from Israel and the USA.

Dr. Rebecca Winthrop (Brookings Institute): In a world where the ability to manipulate knowledge and information, think critically, and collaboratively solve problems are essential to thrive, access to quality education is crucial for all young people. It will take 100 years for poor kids in US to become rich kids. This is unacceptable. In Leapfrogging Inequality, researchers chart a new path for global education by examining the possibility of leapfrogging—harnessing innovation to rapidly accelerate educational progress—to ensure that all young people develop the skills they need for a fast-changing world. We mean a big-step change. Analyzing a catalog of nearly 3,000 global education innovations, researchers explore the potential of current practices to enable such a leap. It is an evidence-based framework for getting ahead in education grounded in the here-and-now by narrating exemplary stories of innovation from around the world. These stories are one key to how can we harness resources to help teachers be there – parents, grandparents, lecturing/mentoring teachers.

Michal Barkai-Brody (Alma Derech-Eretz): The Israeli army is an important and unique platform for female youth at risk to change the course of their lives. Alma is a pre-army service program for girls to dream big. By taking a meaningful leadership role they can improve their future life opportunities. This program develops their adaptivity, entrepreneurship and leadership and prepares them for such roles in the army. This is achieved by making them responsible for their daily shared living with the ongoing support of a mentoring team, and having them meet positive female role models in key positions both within and outside the IDF. This ecosystem has the power to shape the rest of these young women’s lives by encouraging them to aspire to personal and social goals far beyond what they could have imagined in their home environment.
Prof. Yossef Klafter (Tel Aviv University): In order to create adaptive humans, we, as a higher education organization and given our involvement in high schools, must be flexible; offer a curriculum with as many choices as possible; encourage interdisciplinarity; develop engineering alongside human capacities; provide a broad toolkit. Such personalized learning means being able to study a main subject along with any other courses one is interested in. Online learning offers a broader discourse about where we are going: it can connect the university with the periphery. With online learning a whole country can be “privileged”. Our concept is to build an academic high school where students take university-level courses and tests mentored by their teachers. Every student who receives accreditation for 3 such courses will have proved they can cope with academic studies. This move can reduce social gaps, without requiring the university narrative to change.

Dr. Muhammad al-Nabari (former mayor, Hura) sought to dramatically change the Bedouin community of Hura in the Negev during his term as mayor. The town has adapted to many 21st-century aspects within an extremely short period - digitalization, higher education, women's literacy and more. In Hura the change began within the community itself, by creating the understanding or the need to change deeply entrenched but undesirable cultural habits (e.g., the inferior status of women, the prevalence for violence and clan feuds, the lack of interest in education). The understanding that change cannot come only from the outside, led to an increase in the collection of municipal taxes (from 2% to 85%). Education was taken seriously, and included entrepreneurship and leadership in the schools. Today 50% of the Arab students at Ben Gurion University come from Hura and women work in both low-tech and high-tech jobs. The internal changes and the development of local leadership made it possible to gain government support and that of private donors to the new ecosystem. This success required a new ecosystem involving many parties, and it is clear that the more entities within the ecosystem – the easier it is to lead change.

The issue of changes within the minority Arab population in Israel was further expanded on by Israel's Director, Prime Minister's Authority for the Economic Development of the Minority Sectors Ayman Saif. Though 21% of the population, they were sadly neglected, with many learning gaps and a much lower eligibility for matriculation. Change began with the establishment of a government authority to invest in the economic development of the Arab population in 2008, also demanded by the OECD. The challenges were to persuade the government to invest money on the one hand, and on the other, to persuade the target community to take this seriously. The real challenge was to bring into this ecosystem many different stakeholders who share a deep mutual distrust. The new authority put great pressure on the government ministries to change their policies both in budget allocations and in the policy of hiring members of the Arab minorities as civil servants. This has increased from 0% in 1994, to 1% today, and in high tech, employment of Arabs has risen from 0.5% to 4%. This is a clear example of adaptivity born out of necessity.

As the mayor of a town with a highly diverse population in terms of religious observance (from secular to ultra-orthodox) Dr. Aliza Bloch reiterated the notions that change requires political adaptivity to changing realities, with the town's leadership steering the discourse alongside the residents’ willingness to engage, to embrace inclusion and understand all viewpoints and live together as a community. The next change is to see this as an advantage and an opportunity for amazing growth rather than an imposed necessity. The only negative is the price you pay until both the leadership and the residents understand this and are willing to allow this adaptivity to occur.
To complete the Israeli contribution to the notion of adaptivity in the start-up nation, Inbal Arieli (Synthesis) as the panel mediator and Ronen Sofer, a high-tech expert, pointed out that adaptivity is often the result of some constraint, where one is forced to reexamine prior assumptions. Likewise, understanding that for a system to be adaptive we must foster this trait in individuals, Ronen proposed using curiosity and empathy as a way to teach children to be adaptive.

In summation, the following conclusions emerge:

1) the adaptivity of individuals should be cultivated as an integral part of their education for life in the 21st century;

2) passive adaptivity for individuals, organizations and systems still usually occurs only when it becomes a painful necessity and processes are needed to create, develop and maintain it;

3) successful adaptivity in organizations and systems requires the involvement of many partners and stakeholders who must learn to cooperate and collaborate;

4) successful adaptivity will always require creative, brave, visionary and collaborative leadership.

Bringing the Israeli Ministry of Educations perspective, Dr. Michal Tabibian-Mizrahi, who leads strategy at the Israeli Ministry of Education, suggested that the three keywords to creating more adaptive and connected systems are: leadership, management and autonomy. An education ministry should set a goal and then allow the principals and teachers to make their own plans, i.e., top-down should provide the ‘what’, with bottom-up providing the ‘how’. Autonomy should allow for differential management to suit different contexts. The system will be adaptive if it is prepared to use the ‘crowd wisdom’ of principals, teachers and parents when deciding on certain issues. Likewise it must encourage and facilitate capacity building among teachers and principals to enhance their belief in their own ability not only to adapt but also to lead change and seize opportunities to do so. This requires long-term strategic planning.
This chapter is about the nature of the future world and its implication for today’s and tomorrow education; to enhance our ability to look into the future and draw some meaningful conclusions, Maria Spies (HolonIQ) shared the highlights of a study combining existing bottom-up and top-down resources to envision five very different scenarios for education in 2030. The scenarios were examined in terms of global environment, economics, regulation, innovation and technology, and the implications for schools, higher education, teachers, skills training and jobs.

As we gain greater understanding of the “what” and the “how” of future education, such scenarios can help guide us further towards the directions we might want or not want to move in.

Chapter 1 is all about anticipating the future and focusing on the main needs, challenges and more specifically the education challenges of our times. There is a broad agreement about the need for disruptive innovation in education, as there is about the need to keep in mind the thriving of children and young adults all around the world. The next chapter will present a new emerging form of education framework that might be able to meet these challenges.
CHAPTER 2
MEETING THE CHALLENGES WITH THE EMERGING MODELS OF LEARNING ECOSYSTEMS – THEORY AND PRACTICE
"Across the globe there is a growing consensus that education demands radical transformation if we want all citizens to become future-ready in the face of a more digitally enabled, uncertain and fast changing world. Education has the potential to be the greatest enabler of preparing everyone, young and old, for the future, yet supporting learning too often remains an issue for schools alone. As learning frameworks outlining ambitious global agendas for inclusive education and lifelong learning begin to emerge, and as societies become more connected and intertwined, it is becoming clear that society has a collective role to play in equipping people to create meaningful futures, through lifelong learning..."

(Local Learning Ecosystems: emerging models - Valerie Hannon, Louise Thomas, Sarah Ward, Tom Beresford, published April 30th 2019)

THE LEARNING ECOSYSTEM FRAMEWORK

With a clearer understanding of what future education needs to include in terms of relevant knowledge, skills and values, it is possible to focus on how people around the world are attempting to actualize this through the creation of a new emerging form of learning frameworks, recently researched and designed around the world, known as “learning ecosystems”.

GELP co-chair Valerie Hannon launched this discussion by explaining that while the concept of ecosystems is becoming increasingly popular in education, it is also vague and contested. Based on her newly published global report on learning ecosystems in practice, developed for the 2019 World Innovation Summit for Education (WISE) she distinguished between local learning ecosystems that provide direct experiences for young people; innovation ecosystems that accelerate change; and global knowledge ecosystems that are adding to the global knowledge base for education.

See the full report and PPT

This is a new concept that challenges very longstanding assumptions about education (traditionally enclosed in school buildings with a given teaching staff, homogeneous characteristics and standardized curricula, all based on the notion that ‘one size fits most’.

Indeed, learning ecosystems display all the hallmarks of disruptive innovation: expanded goals; new skills and expertise; focusing on the under-served; new players; new power-relationships; ‘shape-shifting’; new metrics. Their implementation is in its very early stages, and learning about its advantages and shortcomings will merge from observation and monitoring of local developments around the world. For example, below are just three of the nine examples of recently planned or launched models of innovative learning ecosystems, from which we will, no doubt, be able to learn a great deal in the coming years.
The key issues that must be addressed by ecosystem pioneers are the following:

› How to evidence learning so that multiple stakeholders can interpret the results
› How to define, develop and quality assure professional and other roles
› How to balance consistency and scale with diversity and localism
› How to ensure sustainable funding while diversifying governance
› How to augment the role of jurisdictions in creating the space, incentivizing, enabling; and creating appropriate regulatory, funding and accountability frameworks.
The development and growth of the RSA & Digitalme’s Cities of Learning programme – to be piloted in 2019 in two UK cities, and planned growth to 6-8 UK and international localities by the end of the year.

The model is orientated around three core design principles: new civic leadership, networks and digital platforms. It aims to close gaps in creativity, opportunity, employment and civic outcomes. It brings together learning, work and civic institutions (schools, colleges, employers, training providers, charities, local authorities, libraries, museums, coding clubs, makerspaces and so on) to form purposeful city-wide networks.

Building a connected learning ecosystem to enrich personalized opportunities for every child in Catalonia. Education360 is a wide alliance engaging hundreds of municipalities, stakeholders, schools, afterschool opportunities and community-based initiatives.

How? Creating an open lab of local practices, offering advice on shared challenges, designing common platforms and modelling new educational policies. Next steps: engaging new sectors, focusing on inequalities and designing powerful tools based on a learning passport & badges.

For more information

NMITE, the New Model in Technology and Engineering in England is a national university seeking a local impact on community growth and well-being. This initiative seeks to keep bright minds in the periphery. This unique ‘talent and innovation’ ecosystem involves engaging schools, colleges and businesses. The success of this ecosystem is linked to graduates’ ability to find good jobs in the area. A key challenge is finding a way to assess this process – perhaps indirectly via the salaries these graduates can obtain. The innovation lies in the university-like institution that eliminates the dividers between formal and informal education.
The WISE report, examining all nine different examples from all around the world, offered the following summary of its findings:

**GOVERNANCE & FUNDING ARRANGEMENTS**
- the importance of catalytic funding;
- new interest from employers;
- distributed collaborative governance

**NEW ROLES FOR PEOPLE & ORGANIZATIONS:**
- expanded educator workforce;
- internship co-ordinators, mentors, advisors, brokers, facilitators, ‘couriers’, ‘ambassadors’, curators, digital enablers, intermediaries

**THE ROLE OF CONTEXT & PLACE:**
- context is key
- hyper-localism – in a digital environment

**IMPLICATIONS & OPPORTUNITIES FOR ASSESSMENT:**
- widen assessment to incorporate it into formal education system (Finland)
- create parallel assessment - digital badging

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**DESIGNING LEARNING ECO-SYSTEMS**

METHODS FOR DESIGNING LEARNING ECOSYSTEMS.

The workshop summaries below indicate the diversity of thought surrounding the intentional development of new learning ecosystems.

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**Stages of learning ecosystem development**

- **EMERGENT**
  - Hypothesis and visioning
- **DESIGNED**
  - Catalyzing and initiating
- **DYNAMIC EXPERIMENTATION**
- **PERMANENT FLUX?**
  - Mainstreaming or sustaining
A ‘learning ecosystem’ is a new way of organizing education to support flexible, personalized learning for every student in a dynamic and rapidly changing world. Even though ecosystems are largely still in a nascent state, many leadership teams around the world, in government, business, and the non-profit sector, seek to organize and guide their education systems to become ecosystems.

The work of Global Education Futures outlines key frameworks, methods, and tools to support such teams and train new team members into working with ecosystems. One tool that facilitates ecosystem design is the Ecosystem Simulator, also available in board-game format. It allows for quick immersion into key frameworks that describe ecosystems and tools that support its development. The Ecosystem Simulator summarizes the experience of dozens of teams around the world that are currently creating learning ecosystems.

From a bottom-up educator-focused perspective, any school can become the generating force of a mini local learning system. A school can become the integrating hub for it. To support the school’s journey and entrepreneurial role, we are using a specific methodology, with the following core questions: - What makes it difficult for schools to break through or expand their boundaries? What are the very basic assumptions underlying the boundaries? What new basic assumptions can replace the old ones? What can schools do to move from A to B?

There will be no real transition into learning ecosystems without shifting the core paradigms on which our entire system was built as well as the basic assumptions about both the real and the perceived obstacles to actualizing learning ecosystems, such as parents, resources, child security, academic achievement, change management in the existing system and more.
Learning ecosystems introduce new actors into the education of young people. As these emerge, with a tendency towards greater self-management by learners, who will play the orchestration role: connecting actors and defining what counts as “Education” (particularly “public education” with its goals of inclusion and equity)?

Government is being called on to play less of the role of provider and regulator, and more of the role of enabler and broker. This would mean creating shared values and a new culture to support the new ecosystems. Others make a case for a completely new approach which claims the government should only outline principles and leave the rest to others, e.g., entrepreneurs, often in partnership with higher education and industry, who seek more open and technology-enabled systems or learners wishing to exercise their agency on how, where and with whom their learning takes place.

This scenario will involve new forms of governance and a shift in the way the politics of education is conducted.
An Israeli Perspective

For groundbreaking professional thinking as we have seen here in the LES environment, Eyal Ram (Ministry of Education), leading the national-level teacher training, related to the question of how to motivate today’s cohort of teachers.

He demonstrated this with a recent development in Israel as part of an assessment containing 12 features of teacher skills, one of which is creating partnerships with the community. This is being done on a platform that includes universities and colleges as a basis for the teacher’s ‘identity card’.

The Ministry of Education deals with three main issues:

1. Developing teachers using the key factor for innovation – peer learning. Israel ranks highly on this.
2. Technological resources – encouraging more and more teacher learning using such means.
3. Developing the skills of creating partnerships with the community, which is vital but complex and takes time. In Israel, for example, there is an office within the local authority that connects schools with volunteers.

Regarding learning ecosystems, which require the involvement of additional people in the learning process in a manner that not only improves the existing human resources but also adds to their diversity, Eyal stressed his belief that innovation does not only come from the outside, but that it is now possible that the country must bring innovation with it. But we must take into account the challenges of taking risks and responsibility. For those with great responsibility it is harder to take risks. It takes courage and a coalition must be created – gathering many people to join you as you define new boundaries. The readier the field is for these changes, the better. There has been a revolution in Israel – with 50% of its teachers choosing the profession as a second career. They have experience in other fields and may connect better with the community and with relevant stakeholders.

As for his own system leadership, Eyal emphasized the difference between his starting point in this position, and the reality of today. “When I started my leadership I wanted to bring in new blood. Now I have to be the person in charge. As a leader, one has to continually adapt to a different type of leadership.”

As is clear from this chapter, and even more so from the workshops, Learning Ecosystems cannot emerge and grow without radical changes at all levels, from the individuals to the heads of the formal administration and education systems, and without including a wide range of very diverse partners, stakeholders and sponsors. The next chapter will address what this transformation entails and how it is happening and can happen in the future in a growing number of jurisdictions.
CHAPTER 3
SYSTEM TRANSFORMATION
It is evident that such a radical transformation will require a wider, more macro-level transformation of jurisdictions: state ministries, local authorities, national / regional / municipal education organizations and so on.

Schleicher, when opening the excellence discussion (see chapter 1) referred to macro-level system transformation (see chart below) and emphasized that the attainment of these redefined goals of education clearly requires systemic transformation of its delivery, and so we must be fully aware of the challenges of implementing systemic moves, especially when these may threaten significant stakeholders in the ‘education industry’. Hence,

(a) agents of change must generate a shared understanding of the need for change in order to create a sense of collective ownership that might minimize resistance to change;

(b) actual change must be preceded by appropriate human capacity building;

(c) change should begin in schools and settings that are open to it in order to serve as successful models that can be later replicated.

“Systemic Transformation: Knowledge is only as valuable as our capacity to act on it, and the road of educational reform is littered with good ideas that were poorly implemented”

Andreas Schleicher
Making transformation happen

An Israeli Perspective

The personal journey of a system leader Prof. Yuli Tamir

My own lessons in leading education reform as the education minister for 2006-2009: First you have to see where you can make continuous change and choose what not to do. There is no point in short-term actions. The system is tired of short-term changes.

Any change in education should be made from within the system while building trust as well as the desire to cooperate with the system.

What is required now to transform a system that functions well, and that has capable teachers are the following:

- Remove tests and evaluation as much as possible.
- Give teachers autonomy to experiment.
- Support teachers to become leaders, allowing them the time it takes and offering them appropriate professional development. The problem is that, unlike in other fields, teaching is not perceived as a profession. We have to strive to make teaching a profession. Empowering the people and not the system. If you do not transform your leadership you cannot lead to transformation in education.
- School principals are the most important link - the difference between a strong and a weak school is its leadership.

Two other major inhibitors to system transformation are:

- Poverty - one-third of our population lives below the poverty line.
- Regulation - it kills the spirit of innovation and makes principals waste time on reporting.

The system does not like change; it prefers local initiatives that leaves the system unchanged.
This chapter is dedicated to the overall transition required from the systems in the different jurisdictions to allow, support, and accelerate 21st-century education, and specifically learning ecosystems. The role of system leaders at all levels will be examined through a number of education jurisdictions that are actively responding to the forces of education transformation. Some of the questions below are addressed in the different experiences in this chapter and some will be taken forward in the different jurisdictions in the coming year.

1. How have transforming systems defined excellence?
2. How have system leaders worked with education professionals as partners to realize new learning and stronger community engagement?
3. What structures have system leaders created to promote entrepreneurialism (agency) in educators and students?
4. How are global education organisations supporting the drive to transform education?
5. What are the specific elements in the approaches being taken by education jurisdictions around the world to transform pre-school and school-age education, including the creation of education ecosystems?
6. What are the challenges and opportunities of movement-building to support transformation which develops greater collective efficacy?

Here are six inspiring examples of transformation efforts, from all around the world.

**HIGH PERFORMING SYSTEMS FOR TOMORROW**

Michael Stevenson Senior Advisor, OECD. The OECD is partnering with the National Center for Education and the Economy and seven high performing education systems: British Columbia, Estonia, Finland, Hong Kong, Japan, South Korea and Singapore. The aim is to optimise existing learning systems, and develop the design principles for future learning systems, in the context of Artificial Intelligence.
Between 2015 and 2018, the Association of Independent Schools New South Wales (AISNSW) led ELEVATE, a collaboration between 40 Independent, Government and Catholic schools across the State. Using an agile, human-centred innovation methodology, teams from each school worked together to design and test powerful new learning experiences for their high potential learners. ELEVATE was part of a national response to data revealing that Australia was losing ground in PISA rankings, falling behind other countries that were innovating their educational offer and highlighting a worrying increase in the gap between the highest and lowest performing students, an important indicator for social mobility and equity in a wide range of health and wellbeing outcomes, as well as a country’s economic prosperity and global competitiveness.

Insights include the fact that some learners need more challenge, others need more freedom and yet others, more choice; that teacher capacity-building is essential; and that learners can design their own meaningful learning experiences.

In 2013, the Free Semester Program (FSP) was introduced in South Korea to nurture the dreams and 21st-century competencies of middle school students by reducing the burden of written examinations in South Korea. FSP provides students with opportunities for various learning experiences and is building a learning ecosystem in South Korea. It also contributes to changes in teaching and learning. After rapid take-up in Korean schools, FSP has now evolved into the Free Year Program (FYP) in partnership with regional Offices of Education. In 2018, more than half of middle schools implemented the FYP. It aims to link to the High School Credit System in every high school by 2025.
The ways in which excellence, capability and transformation can be affected through system-wide leadership, focusing on:

- deep, honest and open conversations as the ‘currency of change’;
- managing the demand side. The importance of flexibility when dealing with a complex, adaptive system;
- collaboration and system-wide leadership. A focus on building an ecosystem for learning in Doncaster. Working in partnership to move from a fragmented learning sector to an increasingly cohering system.

The STEM Excellence Collective Impact Initiative was launched in 2013 in order to address a sharp decline in the number of high-school students who choose advanced math and sciences, and widening gaps in STEM achievements between students of different socio-economic status. The initiative established a cross-sector network of 80 organizations that placed the topic on the public agenda and has worked together to double the number of high-school students who choose high-level STEM studies across Israel. The Collective Impact platform created a unique partnership with the Ministry of Education, unprecedented leadership of the high-tech sector, and diverse strategies of leading nonprofit organizations. Following 5 years of activity, the initiative has proven significant system changes and population level impact.
Big Change and Innovation Unit UK have recently interviewed 20 global pioneers of educational change to understand how they led change projects. However, ‘change’ is often discussed in terms of what we want and who is involved. There is less focus on how it happens. BC and IU have drafted a model of change based on these interviews. The model suggests the following seven essential steps: share your vision early; build a diverse coalition; lead by empowering others; seek co-ownership over collaboration; design for experimentation and continuous learning; govern flexibly and patiently; grow place by place through networks of change.

See PPT

An Israeli Perspective

Transformative change in the Israeli education system. R&D, initiative and experiments. Pedagogical Directorate, Ministry of Education

The Ministry is investing a lot of effort in adapting and transforming Israeli education to give it a future orientation. The R&D work is based on four key principles:

1. Build a pedagogic approach based on future trends research.
2. Develop future-oriented pedagogic products within laboratories and incubators.
3. Validate end products and determine scalability.
4. Create an ecosystem that supports dynamic regulations and systemic innovation.

The Adaptive Educational System: Essential Components

1. Where
A systemic compass provides support and autonomy to school leadership

2. Who
Adaptive leadership encourages field autonomy and entrepreneurship.

3. How
A supportive ecosystem promotes learning and change

How? A Supportive Ecosystem

Human Capital: Professional training and development for teachers, principals and superintendents. Creation of school-based R&D team to guide the transformation.

Policy: Adapting regulation to the field for optimal implementation.

Infrastructure Support: Building and renovating physical and technological infrastructures to support future-oriented, dynamic pedagogy.

Organizational culture: “Take it and make it your own.”

Services: Making knowledge, guidance and support fully accessible.

Budget and Resources: Flexibility in budgeting and designated use of resources.
Across the three days of our convention, we developed collective knowledge about new goals for education and the transformation of learning opportunities. The detailed research that went into the HOLONIQ five-scenario report offers a number of key insights to consider as we move forward:

- Measuring ‘learning’ as distinct from education’ could have a massive upside.
- The next decade will see an additional 350 million post-secondary graduates and more than 800 million K12 graduates.
- Asia and Africa are likely to drive the biggest changes in education attainment over the next decade.
- AI and Robotics are exploding as job categories and desirable skill sets across all industries.
- Blockchain has found education with the promise of tamper-proof credentials.
- Investment in pre-primary education delivers significant and long-lasting returns.
- MOOCS are expanding rapidly.

Such macro and cross-globe research reminds us of the tremendous importance of analyses that integrate data, experience, methods etc. to drive and direct transformation.

In his foreword to the Education Commission’s report on Investing in Knowledge Sharing to Advance SDG 4, Lawrence Summers suggests that a new paradigm in global development is needed to sustain the progress of the last generation, and that within this context, global actors must embrace new forms of collective investment and prioritize the development of human capital. He further claims that investment in global knowledge sharing in education is a clear response to these imperatives and suggests that the report outlines the path forward for effective knowledge sharing in education.

This report presents the following three key findings:

1. **Effective knowledge sharing in education requires the integration of global public goods, capacity development, and networks.** While much attention has been focused on the need for global public goods to support knowledge sharing in education, a more integrated approach is required. Investments in global public goods require complementary investment in capacity development efforts and networks to maximize impact.

2. **Key criteria should be followed to ensure the effectiveness of knowledge sharing efforts.** Through existing research and the collective wisdom of the field, we have generated an emerging set of criteria that can guide effective investment in knowledge sharing. While following these criteria may not ensure success in all situations, they can serve as a reference to help both funders and implementers avoid common pitfalls and increase their chances of spurring successful knowledge-sharing efforts.

3. **More and better investment is needed in knowledge sharing infrastructure.** More and better investment is needed in the elements of knowledge-sharing infrastructure. Funders of knowledge sharing must recognize that inherently longer time horizons and more indirect impact metrics should not disqualify sustained investment in these activities. As examples from other sectors show, investments in knowledge sharing can yield significant long-term results. In the short term, this means funders in education may need to adjust their investment strategies to more highly prioritize knowledge sharing.

There are initiatives underway to grow and advocate for a knowledge base for a Global Education Ecosystem. What can we learn from these efforts so far?
In the panel discussion on these issues we invited Dr. Rebecca Winthrop, Dr. Pavel Luksha and Dr. Hank Nourse to address us. From their contributions, we may conclude that the future lies in the academic world as well as in the field, where educators are developing local knowledge, practices and theories.

The academic world is already looking to reduce technology gaps. More and more people must be connected to existing forums to encourage social entrepreneurship, technological and cultural innovation. There must be a shift towards prototyping, and it must be us who design the change. The new models must be local - municipal rather than national. It will be hard to replicate systems, but there will be local experiences that can be learned from.

It seems clear that teachers must become leaders. Although academia develops and disseminates theoretical knowledge, unique local practical and relevant knowledge develops in the field and should be gathered and made accessible to others, as Mifras attempts to do. There must be interdisciplinary and inter-sectorial dialogue. The myriad of people with important ideas how to transform education must have a way to connect with each other and share their insights in order to build the future together. The youth must also be allowed a voice, to become a part of the dialogue and become engaged in the processes to drive change. In addition, it is not only Education Ministers that must be persuaded, it is also Ministers of Finance and Economy.
There are several school education jurisdictions in which there are growing movements for education transformation.

What are their theories of action - and their impact to date?

Who is driving the transformation?

Insights on how education system leaders can make the most of:

› platforms and social media

› new technologies

› coalitions, alliances and networks – local and global

› the agency of young people.

An opening perspective was provided by Prof. Ami Volansky, Tel Aviv University, former Chief Scientist of the Ministry of Education (Israel), who shared his research on Three Waves of Reform in Education, 1918–2018.

Reforms have become very common practice for changing education systems top down, by ministries, jurisdictions and other formal forces.

When analyzing reforms from 11 jurisdictions (USA; England; Alberta; Ontario; Finland; Hong Kong; Singapore; Queensland; Victoria; New South Wales; Israel), we see that they are grounded on:

a. Criticism of the standardized culture (second wave) which was typically based on some basic assumptions such as:
   I. top-down reinforcements: "What doesn't work with force will work with greater force."
   II. One size fits all
   III. The loss of creativity and joy in teaching and learning, which has resulted in schools becoming a graveyard for creativity.

b. Cultural change – children and youth in a connected, globalized and digitalized world that is affecting learning habits

c. Changing characteristics of the job market

d. The rise of the new skills

When looking into the reforms, a number of conclusions emerge:

1. There is a very long process of implementation.
2. There is a gradual move towards customized learning.
3. Methods of teaching are changing.
4. The learning arena is changing.
5. Active citizenship must be cultivated.
6. The role of the government and the inspectorate is changing.
Not only does the accelerating rate of change mean that the future is increasingly uncertain for young people, but we must also address the fact that millions of children are not achieving their full cognitive and non-cognitive development resulting in Failure to Thrive because of adverse conditions such as extreme poverty, neglect, abuse, violence, war, displacement, etc. System transformation must take this reality into account to create truly relevant solutions.

In India, examples of systemic education reforms include Dream a Dream’s work with the Delhi Government in introducing a Happiness Curriculum in 1024 public schools in Delhi impacting over 800,000 students. The key element of this systemic reform focused on creating strategies for building internal alliances across the education department to create buy-in for bold and unconventional reforms.

Generating systemic change from the bottom up is neither naïve nor hopeless. At Mifras, we work with the system as a joint venture and we believe that there is no other way. The change must come from the field, but in order for it not to be esoteric and temporary, it must grow within a supportive and inclusive environment; one that recognizes needs and weaknesses and provides an appropriate response for future reinforcement and development. That is why we are committed to developing an intrapreneurial culture within the system that envelops our educators. Since 2012, when Mifras was established, the number of organizations supporting educator agency has risen from 2 (one ministerial unit and one other NGO) to countless stakeholders involved in encouraging and promoting intrapreneurship in education. Local authorities have become enablers of growth for educational innovation initiatives.

Tools and platforms for wide implementation educational intrapreneurship (educator agency) also play a major role in promoting system transformation. We now have an index for a school’s self-assessment of their overall intrapreneurship infrastructures; a digital game to motivate stakeholders to take initiative and develop an initiative pathway – and an internet platform for knowledge sharing and dissemination.
Godwin Khosa, National Education Collaboration Trust
South Africa

Dr Karen Poutasi, New Zealand Qualifications Authority
New Zealand

NECT model:
› Defined entity established with a mandate for stakeholder collaboration (with the influence of government but without the bureaucracy)
› Small-scale pilot: gather solid evidence of impact
› Scale-up through the system
› System-wide rollout
› Institutionalisation
› Handover
› Concurrent advocacy, thought leadership, dialogue

For more information

The New Zealand Qualifications Agency, which is responsible for New Zealand's senior school qualifications, responds to the fact that we live in a global digital and connected world by are progressively putting examinations online. This reflects the fact that students are increasingly experiencing digitally-enabled teaching and learning in preparation for tertiary learning and for the workplace. They are employing a planned, staged and managed opt-in approach that is being co-designed with learners and with schools, and this co-design accelerates and enlarges system transformation.

For more information
Education nation's vision:

› A national learning system that equips every Australian with the skills, knowledge and dispositions they need to thrive in a changing world

› Drive a national conversation for a renewed learning system for all Australians

› Build evidence for policy change and reform

› Bring together, current and emerging leaders, thinkers and practitioners in education and learning

› Create resources to demonstrate transformation impact
CHAPTER 4
CONCLUDING REMARKS
The whole purpose of our convention and the leading agenda of all the organizations involved is to have a real positive impact on education systems both locally and globally. We are committed to taking insights, ideas, knowledge, and practices from this report and turning them into realities – from small-scale learning ecosystems that connect to organizations of all types surrounding a school, to more ambitious city-wide or regional initiatives to implement the learning ecosystem concept - all in order to support education transformation for a better world of thriving humans in thriving societies. We will also keep sharing the learning that emerges from such endeavors in the various jurisdictions, both in writing and in our future gatherings.
THANK YOU
Monday, March 4

The challenge of the future and the demand for adaptive education systems

**08:30**
**Welcome**

Dr. Bat Chen Weinheber, CEO, Mifras (Israel)
Liel Malkovich, 12-grade student and the Chairwoman of the National Youth and Students Council Israel
Anthony Mackay, Valerie Hannon, Co-Chairs, GELP

**What do we mean when we say ‘excellence’ in the 21st century?**

*Plenary Panel Discussion*

- Facilitator: Anthony Mackay Co-chair, GELP
- Andreas Schleicher Director for Education and Skills, OECD
- Nations at risk:
  - Eli Hurvitz Executive Director, The Trump Foundation (Israel)
  - Hank Nourse SVP & Chief Learning Officer, New York Academy of Sciences (USA)
  - Prof. Eugene Kandel CEO, The Start-Up Nation Central (Israel)
- Flourishing as a human:
  - Vishal Talreja CEO, Dream a Dream (India)
  - Yael Ne’oman CEO, The Lautman Foundation (Israel)
- Excellence in teaching and leading schools:
  - Dr. Bat Chen Weinheber CEO, Mifras (Israel)

**Developing adaptive humans: examples from the broader education sector**

*Plenary Panel Discussion and 4 interactive round tables*

- Facilitator: Valerie Hannon Co-chair, GELP
- Dr. Rebecca Winthrop Director of the Center for Universal Education, Brookings Institute (USA)
- Leapfrogging to Excellence: A Framework for Education Change
  - Prof. Joseph Klafter President, Tel Aviv University (Israel)
  - The Role of Tertiary Education in a Learning Society
  - Dr. Mohammed Alnabari Former Mayor of Hura
- Tradition and adaptivity, the case of change in the Bedouin community of Hura
  - Michal Barkai-Brody Founder, Alma Derech-Eretz (Israel)
- Creating the Israeli Wonder Women in the socioeconomic periphery
  - Yael Ne’eman CEO, The Lautman Foundation (Israel)

**Lunch time**

**From adaptive humans to adaptive organisations and systems Learning from the Start-Up Nation**

*Plenary Panel Discussion*

- Facilitator: Inbal Ariel Serial entrepreneur & Co-CEO, Synthesis (Israel)
- Ronen Soffer Virtual Assistance and Mobility Expert (Israel)
- Dr. Aliza Bloch Educator and Mayor of Beit-Sheremesh (Israel)
- Aiman Saif Former Director, Prime Minister’s Authority for the Economic Development of the Minority Sectors (Israel)

**Towards connected strategies and roadmaps for education transformation**

*Plenary Group Discussion*

- Facilitators:
  - Valerie Hannon Co-chair, GELP
  - Dr. Michal Tabibian-Mizrahi Director of Strategy and Planning Ministry of Education

**Stress-testing our strategies for the future**

*Keynote and Plenary Group Discussion*

- Facilitator: Anthony Mackay Co-chair GELP
- Keynote: Maria Spies Co-Founder, Holon IQ (Australia)
- Education in 2030: Five scenarios for the future of learning and talent

**Plenary Assembly**

- Facilitators:
  - Kathe Kirby Executive Director, GELP
  - Lilac Wasserman Global Collaborations Manager, Mifras

**17:30-20:30**

GELP Dinner at The Link Hotel
Networking, food and live unique music
Tuesday, March 5
The emergence of learning ecosystems

08:30
What are education ecosystems?
Keynote, plenary panel discussion and round tables

Valerie Hannon, Founding Director, Innovation Unit UK
A deep dive into learning ecosystems Four Interactive Roundtables (2 rounds)
Cities of Learning
Rosie Clayton Associate Director, Cities of Learning, RSA (UK)
Educational
Ismael Palacin General Director, Jaume Bofill Foundation (Catalonia)
Municipal Excellence Centres as networks for creating learning opportunities:
Dr. Heftsi Zohar Deputy mayor Beer Sheva, in charge of the education portfolio (Israel)
A talent and innovation ecosystem at the UK’s newest university
Michael Stevenson Senior Advisor, OECD (UK)

Designing a Learning Ecosystem: What have we learnt?
Plenary Discussion

Facilitators:
Anthony Mackay Co-chair, GELP
Eyal Ram Deputy Director General & Director of Teaching Personnel, Ministry of Education (Israel)

Network activity

Lunch time

Designing a Learning Ecosystem
Three Break-Out Design Workshops

Designing a Learning Ecosystem
Dr. Bat Chen Weinheber CEO, Mifras (Israel)
Designing a Learning Ecosystem: A Toolkit for Leaders
Prof. Pavel Luksha Professor of Practice Moscow School of Management SKOLKOVO (Russia)
Governance and Learning Ecosystems
Amelia Peterson (UK) & Anthony Mackay (Australia) GELP

16:15-17:00
Synthesis: What are key features of a healthy learning ecosystem?

Facilitator: Anthony Mackay Co-chair, GELP
Respondents:
- Dr. Jan Owen CEO, Foundation of Young Australians (Australia)
- Dr. Colman Farrell Head of Programme Development, Innovation Academy, University College Dublin (Ireland)
- Yael Ne’eman CEO, Lautman Foundation (Israel)
- Eyal Ram Deputy Director General & Director of Teaching Personnel, Ministry of Education (Israel)
# Anticipating the Future: Leading Education Transformation

**GELP Israel: 4-6 March 2019**

## Wednesday March 6

**Networks and strategies: leading education transformation**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Presenters/Participants</th>
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| 08:30  | Transforming education systems                                       | Prof. Yuli Tamir, Former Minister of Education and President of Shenkar, College of Engineering and Design (Israel)  
Anthony Mackay, Co-chair GELP |
|        | The potential for global knowledge ecosystems                        | Facilitator: Anthony Mackay Co-chair, GELP  
Dr. Rebecca Winthrop, Director of the Center for Universal Education, Brookings Institute (USA)  
Hank Nourse, Senior Vice President & Chief Learning Officer, New York Academy of Sciences (USA)  
Prof. Pavel Luksha, Professor of Practice Moscow School of Management SKOLKOVO (Russia) |
|        | Going deeper: Cases of transformation                                | 1. High Performing Systems for Tomorrow  
2. Transforming education systems through building communities of practice to innovate in schools  
Keren Caple, CEO, Innovation Unit Australia and New Zealand  
Sharon Cheers, Head: School Innovation, Association of Independent Schools New South Wales, Australia  
3. The evolution of Free Semester / Free Year Program and learning ecosystems in South Korea  
Kerri Creedy, CEO, School Innovation Australia  
Sharon Cheers, Head: School Innovation, Association of Independent Schools New South Wales, Australia |
|        | Six Interactive Roundtables                                          | 4. System change in intransplantable conditions:  
Damien Allen, Director of People, Doncaster Council (UK)  
5. STEM Education Collective Impact Initiative: Expanding the circle of STEM excellence in Israel  
Inbar Hurvitz, Deputy Director, Sheatufim & Head of 5*2 STEM education Collective Impact initiative (Israel)  
6. How big change happens  
Tom Kenyon, Director: Systems Change, Big Change (UK) |
|        | Insights from the Roundtables                                        | Valerie Hannon, Co-chair GELP  
Meirav Zarbiv, Director of the Research and Development Department, the Ministry of Education |
|        | Reinventing the meaning and use of everyday objects for creative education | Hanoch Piven, Illustrator, artist and educator (Israel) |
|        | How do jurisdictions accelerate and enlarge system transformation?    | Facilitator: Anthony Mackay Co-chair, GELP  
Opening perspective Prof. Ami Volansky, Tel Aviv University and former chief scientist, the Ministry of Education (Israel)  
Dr. Jan Owen, CEO, Foundation for Young Australians (Australia)  
Vishal Tolreja, CEO, Dream a Dream (India)  
Dr. Bat Chen Weinheber, CEO, Mifras (Israel)  
Dr. Karen Poutasi, CEO, New Zealand Qualifications Authority (New Zealand)  
Godwin Khosa, Founding CEO, National Education Collaboration Trust (South Africa) |
|        | Plenary Assembly                                                      | Dr. Bat Chen Weinheber & Valerie Hannon |
|        | Official Closing                                                      | Anthony Mackay, Co-Chair, GELP  
Yael Ne’eman, CEO, The Lautman Foundation |
| 13:30  | Lunch time                                                           |                                                     |
| 16:30-18:30 | Local Learning Events:                                                | Ashkelon: National pre-school supervisors gathering  
Tel Aviv: Mifras Incubator alumni  
Reshon Letsion: Municipal learning event |