

# **"Education City – A learning Social Network"**

## **The Path of Education System in the 21st Century**

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### **The Fourth Wave**

Most of us stand in awe of the remarkable changes that take place in nearly all of life's circles, and the pace steadily grows faster. So, welcome to Alvin Toffler's Information Wave, to John Perry Barlow's Economy of Ideas, to Daniel H. Pink's Conceptual Wave and to David Passig's Information Wave...

We have departed from the First Wave, the Agrarian Wave of mid 19th Century, a period of time when most of Earth's population earned a living from agriculture. Next, towards the closing of the 20th Century, we have departed from the Second Wave, the Industrial Economy Wave. And today, we are in the midst of a transition from the Third Wave of Information Economy to the Fourth Wave of Knowledge and Creativity Economy, a wave in which, according to predications, the majority of Earth's population will deal with the creation of new knowledge, in addition to even faster growth in technological and social changes.

According to Daniel Pink's description, in the Fourth Wave the employee will be a worker-artist, an individual skilled in thinking outside of the box, and will know how to generate new solutions for old and new needs alike. Pink refers to the Fourth Wave as "The Conceptual Age." The skeptics among us, those disinclined to believe that the Fourth Wave is indeed at our doorstep, are welcome to feast their eyes on the tip of the iceberg: the Network Revolution in general, and social networks in particular, in addition to multiple economic and political revolutions presently taking place worldwide.

Nevertheless, one should not be mistaken: The change I refer to is not merely a technological change, and is embedded in the roots of our essence as human beings – Are we parts of a bigger machine, identical to other parts, intended to execute activities for which we were specifically trained, and for the sole purpose of promoting tasks on which decisions we have no involvement in? In my view, the essence of man lies in the fact that his personality is autonomous, unique and distinctive.

If this notion will govern and motivate us in our lives, we will be able to distinguish the uniqueness of people and cultures that surround us. And in the interaction between us and them, an interaction between people who are different from one another, a new energy of creativity will form – James Michael Surowiecki refers to this as "The Wisdom of Crowds", a collective wisdom created by means of cooperation, which shapes businesses, cultures and countries.

The Network Revolution (open source software, Wikipedia, open research approaches, etc.) constitutes both an expression and an engine for "The Wisdom of the Crowds," which rapidly increases both in volume and in influence. This development is reminiscent of the Printing Revolution, which revealed and distributed to the masses works not available beforehand.

The Network Revolution transpires as a two-way process. On the one hand, it continues the Printing Revolution and enables many more people to express their brilliance and uniqueness and to benefit from immediate exposure to huge masses of viewers, listeners and readers; On the other hand, it does not merely expose works, but rather play an active part in their formation (in science, art, technology, etc.) through global cooperation that was not possible in the past.

In light of the ascending Fourth Wave, we look in astonishment at the education system, which blocks necessary changes within it. The education system, disregarding reality, keeps on preparing its students to life in the Industrial Revolution's economy (The Second Wave) by guiding them to one-size-fits-all type of programs that deal with "what", "how", and "when", and concentrates on the attempt to maintain the idea of "to be like everyone", "to learn like everyone", and to "uniformly act like everyone", a highly suitable approach to life in the previous century, intended to train millions of obedient workers for manufacturing plants. One outcome of this educational approach is the high number of unemployed people among university graduates during the economic depression the world is currently undergoing. Many of whom discover that the education institutions have prepared them to a non-existent world. Thinking out of the box, creation through cooperation skills and coping with questions, instead of memorizing answers – are not an integral part of the current education system.

In the last three decades, I am on a quest for finding an answer to the question how to create a substantial change in the education system, a change that will allow the highest level of realization of each person's potential and at the same time, to create in cooperation and to respect diversity. A change that will transform the education system to suit the new choices offered by the 21st Century and to life in the Fourth Wave era. Recently, I believe, we are approaching a new groundbreaking educational answer – a transition from schools of the industrial age to a "learning social network" – and its implementation, which I refer to as an "Education City." What is a "learning social network?" what is an "Education City?" and how do they form the foundation for the new education system?

This year, in cooperation with my friend, Ram Shmueli, we have founded the "Education Cities" organization, which focuses on the effort to provide answers to these three questions, and primarily to develop what will lead, in our opinion, to the quantum leap so urgently needed by the education system. In this short article, I will attempt to answer these questions and to present the idea and the work accompanied by examples from the field.

## **"The Multi-Dimensional Person Approach"**

In 1987 I have initiated the foundation of the Democratic School in Hadera, Israel. With the help of a wonderful group of people we have founded a different school – the first to use the title "Democratic school" (followed by the foundation of twenty five additional democratic schools in Israel, and hundreds of "alternative schools" worldwide have decided to adopt this title and joined the "Democratic Education" approach). In time, "Institutes for Democratic Education" have been established around the world. This started the implementation of democratic education ideas in public education system's schools as well as in academic circles.

The democratic school is a design that continues the attempts made throughout the 20th Century to establish humanistic schools; these attempts were either unsuccessful or did not expand beyond the local scope. Time and again, I am asked, how is it that the Democratic Education idea disseminated so rapidly in different areas worldwide. My answer is that the Humanistic Education pioneers, our predecessors, were simply ahead of their time. Fortunately for us, we are active at the right time, when all the prerequisites (the Fourth Wave) for the emergence of a new education model have been fulfilled and nearly all of those working in education, eagerly expect for a change to occur. Furthermore, the Internet Revolution facilitates sharing of knowledge and collaborations that were not available to the Humanistic Education pioneers during the last century.

In retrospect, I refer to the principal idea that guided us when we established the Democratic School as "The Multi-Dimensional Person." According to this idea, each person has areas or skills in which he/she is strong, average or weak. This sounds trivial, however in a methodology that categorizes people into strong, average or weak, an individual who is strong in Mathematics, for instance, will be considered strong even in the event that his emotional intelligence is very low, and in contrast, an individual who struggles with reading and writing will be considered weak, even if he is a gifted painter.

"The Multi-Dimensional Person" approach revokes the preference of certain areas as indicators of weakness or strength. Each and every one of us is brilliant in one area and weak in another, or in other words, Multi-Dimensional. We label inborn or acquired strengths "areas of strength". These differ from one individual to another and acknowledging them grants each and every one of us the opportunity to stand out and excel in his area of strength, and to experience success as opposed to many years of struggling to attain mediocre or low achievements in an area he is weak in. In addition, most of us also have "areas of growth," areas in which we often do not have an inborn talent, however, in which we do have high levels of motivation that stems from interest and from a challenge. Obviously, these areas are, too, unique and vary from one student to another.

"The Multi-Dimensional Person" approach leads to the emergence of a new school which goal is to aid each student in creating and acquiring tools that will enable him to realize the potential that

lies within him. In such a school each student will have a study program which is based on his individual area of strength, hence his unique talent, and on his area of growth, hence the area that appeals to the student and where he exhibits high levels of motivation, even if he is not naturally talented in this field. Once the student experiences success and his educational self-perception is strengthened, he will be capable of coping with areas of lesser strength.

The attempt to implement the Multi-Dimensional Person idea in the Democratic School was executed in three major methods:

01. Mentorship: In the heart of the educational work lies a close, personal bond between teachers and students is a bond through which a mutual trust is cultivated and a profound knowledge of the child and his areas of strength and areas of growth generated.

02. Structuring an educational framework that enables each student to build a personal and unique study program.

03. The school is constructed as a democratic organization, and the processes of decision making and implementation is executed in a democratic format encompassing the entire school community, hence, students, teachers and parents. Thus, we have produced a fertile ground for testing collaborations for promoting the goals of the community as a whole.

### **The Law of Educational Leverage**

The universal Law of Leverage states that the longer the lever arm, the less force required to lift a mass. In Educational Leverage, the lifted mass is Educational Success (personal or system-wide), the long lever arm is Motivation (area of growth), and the force acting on it is Knowledge and Talent (area of strength). And similarly to physics, when the lever arm is very long (High levels of motivation), one can raise a substantial amount of success even in the absence of exceptional talent. To accomplish this, one clearly needs a fulcrum to balance between the lifting end and the one being lifted. School is the required fulcrum for raising the educational success.

The famous quote attributed to Archimedes is “Give me a lever long enough and a fulcrum on which to place it, and I shall move the world.” The equivalent educational saying is, give us an education system that respects and appreciates its students’ uniqueness, and therefore knows to stimulate their internal motivations, to support and empower them – and we will have succeeded in changing an entire universe, the universe of a single child!

On our learning journey in the Democratic School we have learned that amplifying the level of motivation (elongating the lever arm) required primarily three central elements:

First – the presence of a meaningful adult for the child in school.

Second – Experiences of success acquired during activities related to the areas of strength, create a basis for leveraging future successes and empower the students’ sense of ability.

Third – Including the students in the democratic management of the school for the purpose of eliciting a sense of identification with the community and a sense of being part of it, is essential for generating a growth promoting climate.

### **“A Learning Social Network” – A place where we go “fishing together”**

In practice, the success of the Law of Leverage and the implementation of the “MultiDimensional Person” idea are merely a starting point. Following the process of uncovering the unique areas of strength and areas of growth of an individual, he is equipped for noticing the uniqueness of others around him. I refer to this stage as “Social Realization” (The next stage following “Self-realization”), where, concurrently with uncovering strengths and desires, restrictions are uncovered too. On the path to achieve any goal a person sets to himself, there are obstacles and obstructions, and to overcome them, one must find complementary partners. Thus, collaborations are key for success. In my view, a necessary bond is formed between the “Multi-Dimensional” approach and “the wisdom of crowds.” My contention is that when one creates a community in which each individual discovers the genius part that lies within him, and at the same time learns to see the strengths of others around him and the ways he can collaborate with them, ideal conditions are generated for the emergence of “the wisdom of the crowds” or “the wisdom of a great deal of geniuses.”

The old education systems produced a hierarchical classroom in which the more successful the student is, the higher he climbs in the pyramid. An education system focused on its students’ achievement of social realization, acts as a “learning social network.” The aspiration is that the “Pyramid Classroom,” 30 students in front of a single teacher, will transform into a “learning social network,” comprised of 31 teachers and students – a network in which each student or teacher can teach his/her areas of strength and learn from the strengths of others. One may, therefore, divide the implementation of the “Multi-Dimensional Person” idea into two phases: In the first phase, the individual uncovers his own areas of strength (brilliance) and that of others around him; in the second phase, he encounters the human desire to collaborate for the purpose of promoting a mutual interest.

Hence, the new teacher must be skilled in forming a close bond with the student, and to assist him in uncovering and developing his areas of strength and his areas of growth. In addition, he must acquire knowledge by the “art of collaborations” – the ability to harbor in his classroom a climate characterized by collaboration among different individuals, collaboration that will expand out of the classroom’s boundaries, to the school and to the entire city.

In most cases, the old “industrial” school does not take into consideration the two key components in the development of meaningful learning – each student’s areas of strength and areas of growth, and most of the time it categorizes its students according to age groups or level of knowledge.

In the educational approach of the learning social network and in the implementation of the Law of Educational Leverage, lies, in my view, the educational solution for the future world our students will be active in. A school that operates according to the hierarchical pyramid model, similarly to the industrial manufacturing plant, will change accordingly and operate according to the social network model, which is better suited for life in the Fourth Wave.

If in the old industrial school, students used to memorize knowledge – hence “*teachers handed out fish*”

And in the new industrial school students learned how to learn – hence, “*teachers handed out fishing rods*”

Then in the learning social network, students and teachers are “*fishing together.*”

The Stuchers (Students-Teachers) cope with generating new questions and new answers together, and embark on a mutual quest for development.

### **Change in the genetic code leads to a change in the educational field**

The need for development of “learning social network” models is equal to changing the genetic code of the education system. The system must transform from a hierarchical education system, in which knowledge flows in one direction (from top to bottom) into a network education system, in which knowledge flows between all partners. Moreover, everyone takes part in the creation of new knowledge (the creation of a new world!). In this type of work, the mutual construction of the moral compass (what are our guiding values), is central, thus, the automatic memorization of dictated values is exchanged for a learning journey, intriguing and new.

At this point, the following question emerges, where is the field in which this said change is intended to begin – in the classroom, in school, in e-learning, or somewhere else? And who is intended to lead this process? Mark Zuckerberg started the implementation of Facebook in Universities. Where is the right place to start implementing the “Learning Social Network?” To my delight, intriguing and groundbreaking attempts already exist in the field, and so do brave teachers and heads of teachers who are forced to fight slow and clumsy bureaucratic systems. However, these attempts are merely “a drizzle” and not “substantial rain”. Ministers of Education, who have the capacity for leading a change, opt for quick results and tend to avoid taking the risks involved in promoting the necessary revolution. As a matter of fact, educational innovation

exists on the internet; however, big portions in it stumble into traps of the old educational model and do not make a connection between the social networks' revolution and the education system. Thus, when faced with the accelerating Fourth Wave, the education system does too little and too slow, and keeps on investing resources in blocking those attempting to act for change.

In order to generate a meaningful and quick change, an educational revolution is required. However, again, the question is who can lead such a revolution and in what field must it take place?

After I have worked as a teacher and as head of teachers, served as advisor to a number of Education Ministers, initiated the establishment of an academic faculty for teachers' training program in Democratic Education, and have established and run a number of nationwide programs, I came up with a possible answer:

*The place is a city, and the leaders are the Mayors!*

I have begun searching for a mayor that will agree to "jump with me into the water" and try implementing an idea I called an "Education City." Mayors have a sufficiently long term in office for leading a change in education, in addition to a strong motivation for initiating such change. This is in light of the fact that a successful change in education, can grant political security and serve as a meaningful leverage for executing municipal changes as well as improve the quality of life in the city, on the whole.

### **"Education City" – The Idea**

Even if carried out in the best possible school, the attempt to implement the "learning social network" approach and the "Multi-dimensional Person" approach and to build study programs that are based on each student's unique areas of strength and areas of growth, is extremely difficult when dealing with hundreds of students. At best, each school can specialize in five to ten subjects. However, when we think about connecting the city to school, things look different. Imagine the city transforming into a one big school, or more precisely, into a Learning Social Network. Think of all the available resources in a city: museums, galleries, parks, culture & sports centers, libraries, workshops, manufacturing plants, offices, shops, human resources, and more... Now, imagine that all these resources are available for each child or resident in the city, in such a way that each one can develop his area of interest, to work, learn, teach...the entire city transforms into a one big school that provides education and learning services for each student, and then for the entire population of the city, and in this way, the city becomes a growing field for its residents.

At this point, without a doubt, many questions will be raised, as well as many responses specifying why this idea is not feasible and what are the obstacles that will hinder its

implementation. Therefore, I invite you to consider the “Education City” idea as a window of opportunity. Let’s keep the window open, at least for a short while, and try to see, not merely why it is possible to execute it, but also why is it absolutely necessary to do so.

First, I must stress the point that many cities rank the development of their education system as their top priority. The distinctiveness of an “Education City” stems from the fact that it perceives the education system as a central instrument for the city’s development. Every city, very much like every person, has unique areas of strength and many growth areas. A city successful in linking its strength and growth areas with that of its students and population as a whole, will generate strategic and exceptionally meaningful growth engines. This link is made possible by collaborations between various elements of the first sector (formal and informal education, welfare, employment, city planning, engineering, etc.), elements in the second sector (business sector), the third sector (nonprofit organizations) and the fourth sector (social business organizations) active in the city. These collaborations will transform the city into a learning social network that operates in an open source mode. Thus, all partners in the learning and teaching process are both network users and developers! Every organization or resident in the city can develop unique ways for generating citywide growth engines by connecting between his own strengths and motivations and those of his friends and colleagues, with the city’s strengths and motivations!

In this way, the “Education City” will provide the best answer for its students educational needs:

01. Preparation for life in the 21st Century by uncovering and developing the uniqueness and individual expertise of the city’s students and residents, and training in the art of collaborations within the framework of the learning social network which activates “citywide growth engines.”

02. The process of connecting to the strengths of the urban sphere will require learning and familiarity with the city’s heritage and the local culture, and as a result will generate partnership in authoring the story of the city’s future.

These two components will produce local pride which frequently constitutes a broad basis for generating sentiments of belonging and local identity.

The city, too, undergoes a process of empowerment. Tapping into its students and residents’ abilities and resources will constitute a powerful growth engine for developing public and private business ventures which the city is interested in promoting.

“The growth engine” will be fueled by energy generated by the interaction between the city’s areas of strength and the individual areas of strength and growth. Next, I present examples for this interaction and ways to implement it.



## **Education City – “The Implementation” – Examples from the field**

The “What” questions, are followed by the two “How” questions: How do we create an education system that focuses on the students’ areas of strength and areas of growth through which the students’ growth is facilitated? How do the student’s areas of strength and areas of growth interact with the city’s areas of strength and areas of growth for the purpose of generating a citywide growth engine?

### **Bat Yam – Implementation of the “Bat Yam Model of Personal Education”**

The onset of the quest for an “Education City” started in 2003. At the time, Bat Yam’s Mayor, Shlomi Lachiani, has made a decision to become a pioneer and to break new ground in this field. He approached me (I was then serving as the head of the Institute for Democratic Education) and suggested that we work together on the implementation of the “Education City” idea. The quest began with the Mayor’s explicit announcement: He considers himself responsible for his city’s education systems and is interested in utilizing it as an instrument for leveraging the entire city. Step-by-step, we have developed The Bat Yam Model of Personal Education, in cooperation with the Ministry of Education and the Rashi Foundation. The program placed the individual strengths of each and every student at the center of the educational work. The following three concepts were at the heart of the program:

01. Early Morning Circles: Regular morning meetings between homeroom teachers and their class, focusing on expanding the personal acquaintance with each student and gradually building a unique study program for each student. The program is centered around the attempt to identify at least one area of interest in which the student can excel, and then assist him in realizing his competency in this area of interest, with the intent that experiencing success will reinforce the student and assist him in coping with areas of lesser strength too.

02. Connecting Formal Education with Informal Education: In order to provide a response for multiple areas of excellence of the entire students’ population of Bat Yam, we needed the resources of both the Formal and Informal Education in the city, in addition to the cooperation between them.

03. Connecting between the city’s array of welfare services and the city’s education system for the purpose of breaking through the socioeconomic glass ceiling which constitutes an economic and cultural block. For this purpose, we have developed minimum-bureaucracy communication channels between the array of welfare services and the teachers, to provide a speedy and efficient response for every problem, with the notion that a hungry or abused child cannot, under any circumstances, realize his excellence.

The educational program’s success was manifested in three categories:

01. Improvement in academic achievements.
02. Decline of violence and improvement in educational climate.
03. Increase in the students' local pride.

In addition, this change was manifested in upgrade of the municipal infrastructures which emerged as a source of attraction for young families, and led to an upsurge in the city's real estate prices and a rise in Bat Yam's prestige.

The program's success, has led to its implementation in additional municipal authorities, and thus we learned, as anticipated, that the program works well mainly in cities where the Mayor assumes responsibility and leads it, and falters in cities where the Mayor is not assuming leadership role in its implementation. Moreover, the program has earned success on the national level, too. The Minister of Education at that time, Prof. Yuli Tamir, has made the "Personal Education" program an integral part of the "Ofek Hadash" (new horizon) reform in junior highschools nationwide.

### **Tiberias – Implementation of the "Municipal Growth Engines" concept**

Another breakthrough in the journey for an "Education City" occurred in Tiberias in 2008. The Mayor, Mr. Zohar Oved, has taken the implementation of the Education Cities idea a step ahead and perceived it as the principal engine in the citywide strategic plan. This time, the second part in the Education City equation came to play – the part pertaining to the creation of an "instrument for citywide development" as a result of linking the areas of strength of students and their parents with those of the city.

A structured strategic process revealed that in order for Tiberias to fully utilize its developed tourism, the city must adopt a new approach and move away from the customary hotel system ("all inclusive"), that keeps the tourist in the hotel and limits the citywide economic traffic, towards a tourism array that will invite the tourist to step out into the city, tour it and enjoy a wide range of unique activities, hence, developing a "Sightseeing Tourism".

We have designed a program by which this need is met through the city's education system. This is how it works:

In the first phase we have activated the "Personal education" program. Each one of the city's students, through a structured process, identifies his areas of strength and areas of growth, whereas the city supports the construction of an individual development path for each student. This is accomplished within the framework of the formal and informal education, family and community settings, as well as others.

In the second phase, we have developed a local-municipal study program – in which all the students are learning the city's celebrated history, i.e. the fact that it served as the capital of the

Jewish world during a period of five hundred years after the destruction and fall of Jerusalem, its heritage, in addition to the natural resources in Tiberias' vicinity, the city's cultural and art treasures, sports and other areas. This learning is accompanied by a process of identifying and mapping the city's current areas of strength, and analysis of its future development avenues.

In the third phase, "Education through development of citywide growth engines", the students choose in what area of activity they would like to participate. It can be either a structured development of one of the city's landmarks; an attempt to find a solution to one of the municipal problems they have revealed; or initiating an activity aimed at promoting the city's strategic future plan. For instance, Tiberias' Archeological Park was designed by the students of the "Branco Weiss" School, who also operate and run it; another example: the "Cultural Ambassadors Program," within which Tiberias' youth serve as tourists' guides on city routes.

The municipal journey of Tiberias is called "*Future rising from the past*", and when asked whether this is a program, or an educational initiative, the Mayor had determined – we are speaking of the "*Tiberian way of life!*".

### **Hadera – YACHOL (Hebrew for "can", and acronym for Green, Blue, White)**

In 2009, Mr. Haim Avitan, Mayor of Hadera, had made a decision to join the "Education Cities" program. The program's title in Hadera is "Hadera in Green, Blue, White", this title represents the city's areas of strength – Green stands for the Green City (Hadera has many agriculture lands, and its name, Hadera, is derived from the Arabic word for green – "Al-Hudayra"). Blue & White symbolize the Zionist pioneering spirit in the unique story of the city's establishment. The process of drying out the area's swamps, against all odds, demanded exceptional vision and determination. In addition, the blue & white stand for 120 years of absorbing and integrating immigrants in the city, and the city's pluralistic life as a result. At the heart of the program lies the "Art of collaborations" concept. The emphasis is on mutual construction of the action plan by a large group of position holders, organizations and residents, who jointly attempt to create the native Hadera YACHOL.

### **The city as a municipal academy**

As mentioned before, the steadily progressing Fourth Wave, designs a world in which the majority of residents will earn their living from the creation of new knowledge. Hence, this entails that learning is supposed to break through the boundaries of school and shift to a life-long learning that takes place anywhere! This is where the "Education Cities" vision stems from – in the new city, in the 21st century, every resident will utilize municipal learning centers for improving his life. Hence, the entire city transforms into a "learning social network" that facilitates the growth of its entire population. In this way, every restaurant in town can serve as a part of the municipal culinary school, and every Bank can serve as a part of the municipal school of economics. In fact, we are not talking merely of organizations: every man, young or old, can offer his area of

expertise, in such a way that the entire city becomes a campus and provides a life-long learning experience in every area of interest.

The aforementioned examples illustrate how the “Education Cities” team attempts to realize an idea still in its infancy. We cordially invite all who are interested in joining us in this captivating journey, to step out into the municipal sphere and see the new possibilities it offers to an education system interested in renewing itself and becoming relevant in the Fourth Wave Economy.

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