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**Networks and talent development:**

**The Hungarian National Talent Support Network as an example**

We are in a war for talents. Firms, governments, countries are increasingly searching for talent. In the recent economic turmoil, it has been further enhanced that Europe needs a larger emphasis on finding and supporting her talents, if she wants to survive in the long run.

Why do we need more talents in Europe? In the middle of the climate change, energy crisis, economy crisis, and soon inevitable food and water crisis we live in a world, where unexpected changes became an everyday experience. The unpredictable influences of the environment are amplified by the herding behaviour of the modern society. ‘Good costumers’ go after the crowd, and their copied behaviour lead to decision avalanches, which make the outcome even more unpredictable. However, we do not have to worry. Unexpected changes were prevalent in our evolutionary past many-many times. The answer to the question: “Who did survive?” gives us the key what to do in the current turmoil. Survival of complex systems needs their creative behaviour in an unpredictable world. Thus it is not surprising that the competition for the creative and talented mind has tremendously increased in the last decade worldwide. Creative and talented people are our life insurance.

The need of creativity and talent is especially true for scientists, engineers and most of all: teachers. Europe has hundred-thousands of gifted students, who loose their chance to live a creative live by the end of their teenager years. This is an unacceptably large loss – a loss of our better future. Europe will loose the emerging ‘talent war’, and will be extremely vulnerable in the ongoing world-wide game of the ‘survival of the fittest’, if talent support programs will not be taken more seriously as before.

After answering the question: “Why do we need more talents in Europe?” let me make it clear what does modern psychology means under “talent”. Giftedness is a promise for future success, a set of hidden abilities. Talent is already the stage when giftedness has already been revealed and recognized, many times even developed to a certain extent. However, talent itself is still very far from success. Successful development of talent needs a lot of perseverance and help.

Giftedness and talent is not the treasure of the very few any longer. When we speak about talent, we are not only speaking about modern Pasteurs, Curies, or Debussys. Talent has five major ingredients:

- (1) good cognitive abilities such as problem-sensitivity or memory, which are the properties of our left brain hemisphere;
- (2) creativity, which is the property of the right hemisphere;
- (3) motivation, where we may also list interest, perseverance and emotional stability;
- (4) any of the hundreds of specific abilities above than average and “specific” here not only means mathematics or music, but also talent in entrepreneurship, communication, or even spiritual talent;
- (5) last but not least: networking, which is needed to develop success.

Creativity is a very specific ingredient of talent. The school system usually does not tolerate creativity since it “disturbs” the normal flow of education. This is not a problem by itself. Creativity can only seldom be tolerated. Just think about a creative taxi driver or a creative surgeon... Thus, the problem is not that we do not set a free flow of creativity at the school. The problem is, that we stop creativity, we kill creativity instead of re-channelling creativity. When creativity is re-channelled an equally creative alternative solution is shown to the creative student, which now can be tolerated instead of the original, which could not be tolerated. However, this re-channelling needs creative teachers.

The hundreds of specific abilities are nicely demonstrated by the Piirto-model listing any of the usual subjects in schools, any types of arts, sports, talents related to manual skills and also talent in entrepreneurship, communication, or even spiritual talent. This multitude of talents warns us especially that the recognition of talent needs a lot of creativity, patience, long-term thinking, trust, love and belief. The good mentor is not seeing the student, who is standing before her, but the student, who may develop after twenty years, if everything goes in an optimal way.

Obviously, talent is like a pyramid. We have much more who are potentially interested, than those, who can be regarded as a genius. However, we do need the base of the pyramid to reach the top. We have to take into account as much as 20 to 30% of all population in each talent support program to have a hope to discover the top 1 or 0.5%. And we have to keep in mind that we have hundreds of pyramids from the hundreds of special types of talents. And

these pyramids are not fully overlapping each other, which means that at the end we have to consider everyone in our talent support programs.

Talent is like an iceberg. The vast majority of talent is hidden and only waits a good occasion to reveal itself. Any one of us may hide a treasury of hidden talents, and good teachers do know the secret words: “Open sesame!” to liberate this magnificent energy. As much as one third of our students may be talented in any class, and we never know which of our students will reveal her or his talent in the next month. Moreover, talent can be revealed any time in our life. Each novel situation in our life, the birth of our children, but our first year in pension, the birth of our grandchildren all may liberate novel, hidden talents in us. As a summary, the word “untalented” should be erased from our vocabulary forever.

There is a wide-spread misconception about talents recently. We are in the middle of an economic crisis. People tend to think: crisis increases the competition between talents and for talents. Crisis develops a war for talents, where only the bests, the genius can survive, and they, as winner will take all. The situation is not like this – at all. We have a large multitude of talents. Not, one but hundreds of talent pyramids. Moreover, the current crisis, and all the other crisis-waves to come (water, energy, food, migration, etc.) will all make completely unexpected situations, where we will need totally novel solutions. Novel solutions require a large diversity of talents. Thus there is no winner, who will take all. We need a wide-spread cooperation of various talents to solve our major problems. This makes a large number of winners in the future. And do not forget, we do not know, which type of talents we shall need next. Therefore we must treasure all.

Talent-support will not lead to success, if we are unable to teach our talented students to appreciate networks. Networking is a must for success in a modern society. Networking not only teaches us how to cooperate, not only introduces us completely novel skills, information and areas, but also lets us explain our own talent – in a thousand different way. If we can put our talent into various different contexts, and can show its different values in all of these, the market value (and the success) of our talent will be multiplied.

Not all network positions are equal. Ronald Burt, a member of the famous Chicago-school of sociology described ‘structural holes’ in his seminal book. If you are positioned in a structural hole, your immediate neighbours in the network do not know each other. Moreover, not only

your immediate neighbours do not know each other, but their neighbours also do not know each other. If you are lucky, than you make the only contact between the two groups, group 'A' and group 'B', where your two friends, Anna and Beatrice belong. What does this mean? If you tell anything to Anna, which you learned from Beatrice, Anna and her group will be extremely happy, since there were no ways, how they may have learned this information from anyone else. You will be an important, interesting person, for both groups. What happens, if Anna and Beatrice know each other? If you learn about something from Beatrice and try to tell it to Anna, Anna will yawn. Listen, this is old stuff, I have heard it already a long ago. If your friends know each other you will be a loser in the networking game.

When I made these statements in a lecture, which I had in Hungary, a teacher approached me later and told: "Professor Csermely, I would not want to live in your world". When I asked her the reason, she responded: "If people would live as you suggested they would carefully plan their friendships, and would not approach someone just because she is already a friend of their former friend. This is a world of cruel, planned contacts, a Phalanstery, where I would not live for a fortune." You do not have to worry on this. First, in reality you seldom start a contact by listing your friends to see how many of them are common. Secondly, and more importantly: these decisions are seldom conscious. Building 'high-value', non-redundant contacts needs a lifestyle, which is open for novelty, and open for a change. If you treat novel situations and information as an exciting challenge instead of conceiving them as a problem, you will build a successful network without ever thinking of it.

Another remark hearing the advice of building non-redundant contacts came from a Hungarian high school student. "Peter, if I want to be successful and follow your advice, I have to quit talking to some members of my family. I have a family, where members know each other. My father knows my mother, both of them know my sister, and I know all of them. Any of us is a loser in the networking game." No, your family ties are exceptions of this rule. You do need a very strongly-knit personal network around you to ensure your emotional stability. This is an equally important piece of success than the non-redundant contacts I mentioned. The non-redundancy should come into picture only at the second or third rounds of social contacts.

What do you need to develop a successful social network? First of all: you need a positive self-image. How can you check that? You should make the bathroom mirror test. You enter

your bathroom early in the morning. The first part of the test is, if you can actually have a look to your own face at the mirror or not. The second part is, if you can smile to your image in the mirror. The third and last part is, if you can tell to yourself without laughing that “I am pretty, I am skilful, and I will be successful and lucky today”. If you passed this test you will spread positive comments around you, which is a must for building any type of network. If you have not passed this test – practice! After seven consecutive mornings you will start to think that you are right: in fact, you are pretty, skilful, successful and lucky. And so you will be.

The importance of spreading positive comments around you can be judged by the 1:5 rule. This was a finding after a video-recording of conversations between couples. The researchers analyzed the content of the conversations regarding the number of positive or negative messages about the partner. As an average the partnership was still viable after 5 years only, if the number of positive messages was 5-times higher than that of the negative messages. We are thirsty for positive feedback (as a type of modern-age grooming) and quit contacts, if they will not satisfy this thirstiness.

Thus, contact building requires long-term thinking. A good example of this is the marshmallow test. Almost forty years ago, the famous American psychologist, Walter Mischel made a classic experiment. He left 4-year-olds kids in a room with a bell and a marshmallow. If they rang the bell, he would come back and they could eat the marshmallow. If, however, they did not ring the bell and waited for him to come back on his own, they could then have two marshmallows. Their performance varied widely. Some rang the bell within a minute. Others lasted 15 minutes. The children who waited longer had better results in school later on. They got into better colleges and had, on average, better adult outcomes. The children who rang the bell quickest were more aggressive in schools. They received worse teacher and parental evaluations 10 years later, and were more likely to have drug problems at age 32.

Positive content will bring us new contacts, trust and curiosity to build long-term contacts, weak links, resulting in a non-redundant personal social network. Our willingness to spread positive content will also raise positive remarks on us. Smiles evoke smiles. This all will enforce our positive thinking, and will act as a self-amplifying circle. This is an angel-circle

ensuring both our short-term well-being and long-term success and forming a lesson, which we should teach to all of the gifted and talented around us.

We have a multitude of talent-types, if we consider the attitude of talented students towards their own talent.<sup>1</sup>

- (1) The first type is the ‘good student’. This student knows the correct answer to all questions of the teacher. She knows actually the correct answer to those questions, which have not even asked yet. She learns the lesson of the next lecture, and actually she learns the whole book in the beginning of the year to figure out the next question of the teacher well ahead. She might even have a mind-reading ability – as sometimes we may conclude.
- (2) The second type is just the opposite, the ‘debatter’. This student is the nightmare of the teacher, the one we hope never meeting again. He also learns all books in advance. He actually cross-checks the internet for much more information. He prepares nasty questions to each lecture, which can not be answered. He prepares traps by asking questions which have an obvious, but wrong answer, and when the teachers gives this answer, he gloriously proves that it is a blunder.
- (3) The third type is the ‘deviant’. This student suffered a lot already. His talent had never been recognized. Actually he might even be ridiculed by the family, by the friends, teachers, etc. This student developed a helmet and a whole set of armour around him to get protected from the frustration and neglect. However, his creative energy is still within. This energy does not find a way to escape and just grows and grows. There are three questions which do not have an answer: when will this energy explode, how will this energy explode and to what extent will this energy explode. However, there is one thing we can be sure of: the accumulating creative energy of the ‘deviant talents’ will sooner or later explode. Usually sooner, much sooner than we would expect. This mis-channelled creativity often leads to criminal acts, such as aggressive behaviour, drug-abuse, or even more serious offences. However, this creative energy can be channelled to a productive outcome. This needs a special voice, a lot of respect, acceptance and love. If we can approach the ‘deviant talent’ with an exceptionally high intensity of these positive messages it may make a miracle, and turn him from a deviant to a role model as Saulus changed in his way to Damascus.
- (4) The fourth type is the ‘hiding’. This is actually worse than the ‘deviant’. Why? Here the frustrations were more-less the same. However, the reaction was different. Here the

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<sup>1</sup>See a more detailed description here: [www.alps-publishing.com](http://www.alps-publishing.com)

energy has already been lost. This student learned that “talent is dangerous”. Talent should be hidden. “Come on! Everyone is talented in this class – but me. I am not talented at all. Never been.” To bring the creative energy back – this needs months, if not years of nurturing care, trust and love.

- (5) The fifth type is the ‘unbalanced talent’. Actually most talented students are unbalanced. They are extraordinarily good in something – and miserable in others. They may be genius from mathematics, but may completely lack communication skills to tell this to their teacher. These unbalanced talents are perfect subjects of the efforts for students with special needs education in its traditional sense.
- (6) The last type is our dream. The independent learner. This student recognizes the best source to develop her talent in her neighbourhood. She can explain her talent to the person representing this source and can convince this person to cooperate in the development of her talent. She learns the possibilities this person may offer, finds the optimal choice, gets the information how to reach that special person and goes ahead. This optimization strategy can lead to an unbelievably fast speed in the development of talent.

Thus a paradigm-change is needed. We have to concentrate on the talent and values of the students around us, and not on their insufficiencies. All of them have both. If we point out the weaknesses, the students will accommodate themselves to these expectations, and will consistently under-perform. If we give them love and trust they will develop their hidden treasures, and we will be the most surprised what a multitude of gifts will become manifest. In this way we can brake the failure-cascade, and change it to a series of successful events, where the next success is encouraged by the last.

Talent support is a life-time task. It starts at the moment of conception and lasts until death. This may sound a bit unusual statement, but we have to take into mind those experiments, which show the heavy influence of emotional surrounding besides nutrition on the developing foetus. On the other hand, every major change in the life is a novel challenge, which may develop novel gifts into manifest talents. A new job, a change of dwelling place, pension, the birth of our grandchildren are all new possibilities, which we may use to discover novel gifts and talents. However, for this we need to take all new situations as a challenge which we will be able to solve, and not as a problem which we are unable to cope with.

Thus, the start of talent support is the earlier the better. Talent support programs usually concentrate to the higher education. This is a mistake. If we try to reach a short-term success, by picking up those students who show their talent at universities and making headline stories with their innovations and international achievements, we may produce headline stories with a relatively low cost (and before the next elections) but we will lose the largest segment of gifted young children, who will a.) never get to universities without encouragement and support; b.) never show their talents, if we will not help them to realize their giftedness. In the long process of talent support we need to take into account the specialties of the particular age. As an example the neuronal development enables children to understand and develop a 'big picture', a synthesis of a complex knowledge on after the age of 10-14. Before this we will be rather unsuccessful if teaching general synthesizing concepts or asking for an independent science-like project.

The most important tasks of successful talent support are to

- (1) find the type of talent our student has,
- (2) to discover how to help it in an optimal way,
- (3) to suggest an order of different talents and selection of that one which should be developed first
- (4) to organize the support of the family, friends, etc.
- (5) and finally to allow re-creation and a normal human life. Our talents are also children, they need time to play, to find joy, and love. However, we should not forget about ourselves, talent supporters, teachers. Our own burnout is a very serious and usual problem, which we are not recognizing, but neglecting. This neglect leads to imperfect support, and may even cause personal tragedies. Talent support is not self-sacrifice. It gives a tremendous amount of joy, self-knowledge and self-development for the mentor. But all these joyful events may only take place if we are not overburdening ourselves.

We have established the Hungarian National Talent Support Council as an umbrella organization of all Hungarian-speaking talent support NGO-s in Hungary, Romania, Slovakia and Serbia in 2006. In our three years of cooperation we established a contact with 27 member organizations. The criteria for being eligible organization as a member of the Hungarian National Talent Support Council are as follows:



- (1) performs an at least two level selection of talented young people below 35, and helps continuously the work of these talented young people, or their organizations or helps organizations doing the above activities
- (2) works with at least 100 talented young people
- (3) works not only locally but in multiple regions, or nation-wide
- (4) works continuously at least in the last two years
- (5) selection and help of talents is an officially declared element of the organization
- (6) is a legal entity.

Currently, the Hungarian National Talent Support Council has 150 partner organizations and 800 collaborating organizations.

In the last three years the Hungarian National Talent Support Council has developed a nationwide talent support program (called Hungarian Genius Program), which starts in this year and will utilize in the range of 4 million EUR/year using the EU Structural Funds. The Hungarian Parliament adopted a National Talent Support Program in December 2008, which set talent support as a national priority for 20 years and established a Talent Fund giving an additional support in the range of million EUR.

It is very important to remark, that talent support is not a luxury investment, which we may consider to maintain despite of the economic crisis, but it is a key element of the long-term response to crisis. The programs are trust-based, motivation-based, achievement-based, and not selection-based. They will promote dialogue, networking and self-organization.

These programs will establish Talent-points in the neighbourhood of all villages to provide the best help of any gifted students. We have already more than a hundred Talent points in Hungary, Romania, Slovakia and Serbia. A Talent point is an information point which is cooperating with all other Talent points to find the best help for all gifted children. A Talent point is also developing an own, special talent support program using the local resources. Last, but not least the Talent point is helping to raise talent-awareness in the local community, slowly changing the society to a talent-friendly society. The good networking concept of Talent points is not a hierarchical organization but a multi-contact network, giving a large variety of options to cooperate. Networking experience shows that these organizations are much more stable – especially in crisis – than hierarchical structures.

Talent points organize Talent Days to develop a local talent-friendly society and participate in the EU Year of Creativity and Innovation in 2009. The original Talent Day is the birthday of Bela Bartok, the famous Hungarian composer, but in 2007 and 2008 Talent Days were organized all around the year.

The project will be a continuous process, where outstanding students in primary schools will be “handed over” to secondary school programs and will receive a special attention at universities. An example of such a program is the Hungarian Research Student Organization which takes the students from primary and secondary schools and offers them research opportunities in Hungarian universities and research institutions.

As three examples of talented students let me introduce Ms. Brigitta Sipőcz, who discovered an asteroide in the age of 17 by coordinating two telescopes at the internet in Croatia and Spain, and named it after Ernő Rubik, the Hungarian inventor of the Rubik-cube. Ms. Eszter Végh had enough international publications in chemistry at the age of 18 to give her a PhD. Mr. Tamás Révész at 18 summarized ten years of research on the history of a military airport in a 500-page book. Tamas also leads the Hungarian Research Student Association which is a self-organizing movement of two thousand high-school students involved in scientific research. This movement has an international network, called Network of Youth Excellence ([www.nyex.info](http://www.nyex.info)) as well as a younger and an elder brother in primary schools and universities with 500 and 10,000 members, respectively. Brigitta, Eszter and Tamás are role models showing personal examples of the successful, happy and honourable lives of excellent researchers. Surprisingly, a Nobel Laureate might not be the best example to fulfil this role, since young students might say that “her story is not mine”. However, the bright students of the same age give an adoptable, close example of joy and success.