

We look for invisible geniuses, and fight inequality, says Patrick Gaule.

Patrick Gaule, Professor of Economics at the University of Bristol, was recently invited to Prague by CERGE-EI to talk about ways to support mathematically gifted children. “Tutoring, extra classes, camps, summer schools – all these are wonderful, but often students have to pay for them. We want to contribute to making those opportunities accessible to underprivileged kids,” he says. As cofounder of two foundations built for this purpose, he and his team run a program called ‘Backing Invisible Geniuses’ (BIG) which grants scholarships to selected medalists of the International Science Olympiads to enable them to study at a prestigious university.

I wonder whether there is anything personal in your interest in gifted children - were you yourself a gifted child?

No, not really. I was a bit unusual, as a child, in that I read lots of books, but I would not call myself gifted. I was not bad at school, but not a high achiever either.

Well, gifted children are not always good at school, are they?

That’s right.

Some of them may also not perform well in the Olympiads and may even avoid such competitions. Nevertheless, your Backing Invisible Geniuses program offers scholarships to selected winners of these competitions. What about other gifted children, who may be even more invisible?

Well, this criterion is not perfect, and we are aware of it. I do not claim that we have found an impeccable clue to detecting gifted children. Some very smart kids indeed do not like to compete, or they would have done very well but were not given the opportunity. Giftedness and creativity also have many forms and expressions.

We decided to start by supporting the Olympiad medalists because there is already lots that can be done there. There are underprivileged young teenagers among the medalists who would not be able to study in the UK without financial support. Over time, we can add other means to identify gifted children. For now, we are a very small program. We started last autumn and we are ready to support 20-30 young adults in our first year.

There are various foundations that grant scholarships to young high achievers to go to study in the UK. I know of two such foundations in the Czech Republic. Is your program special in any way, compared to others?

When we talk about Oxford, Cambridge, Imperial College London and other outstanding universities, tuition can be more than forty thousand pounds per year, and these are not the only expenses students must sustain. Winners of a high-level international competition can get into all of those universities; they will be accepted. But, as I said, there are some who simply cannot afford it. Some scholarships cover a part of the overall costs, and the family must carry the rest. This automatically excludes those who do not have financial reserves. Our program covers almost all expenses including living costs.

Can you give an example of a beneficiary of your scholarship? A profile of somebody you selected?

For example, we have a student from Bosnia who won a medal in an international Olympiad on our list. He was already working in an AI start-up as a teenager, and was admitted to Oxford. In the BIG program we do not decide which university a student will go to, this is up to the universities; we only grant the student financial support. There is no way this student could have paid the related costs. The alternative for him is to study in Sarajevo, which is ok but of course would not give him the same opportunities to grow and develop his talents fully.

What would you say to someone who might see your initiative as a brain drain? It helps the individual students, but it also greatly helps the United Kingdom. For example, there is a push to develop technological innovations to gain a competitive edge in the UK.

Right. The answer is that we think it can be good for both countries. If even a few of the recipients of scholarships decide to go back to their home countries, they will have a very good impact. And if a person decides to stay in the UK after completing their studies, they can still bring lots of benefits to their countries. For example, CERGE-EI, the Prague based organization where I worked for five years (and which invited me to give this talk), was founded by the economist Jan Švejnar, who left Czechoslovakia as a student and is a professor at Columbia University in New York.

Also, if there is an incentive for young people to study abroad, I think this creates a pull factor for many to embark on an educational journey that can greatly benefit both them and the society, even if they do not leave the country in the end. There was a study published a year or two ago in a respected economics journal, related to a different field but still relevant to what I say. When it became easier for nurses from the Philippines to work in the United States (due to elimination of some migration barriers), for each nurse that left for the US, there were eight additional trained nurses who remained in the Philippines. Instead of having a brain drain effect, the measure apparently motivated more young people to become nurses, who did not all go to work abroad.

On your website, you refer to the Open AI founders as praecox tech talents, examples to follow. Gifted people can really dive deep into what they are interested in and achieve excellence – but they are also inclined to avoid things they are not interested in. The Open AI people are visionary, and manifest a strong will to bring about colossal change in the world. They are also very young. I may be wrong, but I suspect they have not read Dostoevsky's Demons. Their mindset seems very technical to me and their self-concept is fueled by lots of money earned through their business. Isn't it dangerous that there is so much power nowadays in the hands of people who may not have a broad education or much life experience?

I agree with your concern; I think it is very legitimate. But we cannot solve all the problems of the world by ourselves, in our little NGO (*laughing*). The people who found new tech businesses are indeed often already successful and powerful when they are very young, and they may not use their power well or envision all the potential consequences of their decisions. Yes, broader, general education may be the answer, sure. I actually went through a general education myself, learning Greek and Latin at grammar school, and reading lots of books. Maybe my interest in inequality issues comes from there.

Also, I did my PhD at EPFL (École Polytechnique Fédérale de Lausanne). Although it is a technical university, the syllabus is wide, and students take courses in humanities as well. I think it is a very good thing, to be exposed to thinking of this kind.

CERGE-EI invited you to talk about how to encourage and support mathematically gifted children in school and beyond. Were you encouraged to pursue your talents during your school years?

Mine was a normal education in Switzerland. I was very interested in history as a kid. I felt that school was a little boring; it did not challenge me enough, I would say. Boring not in the sense that I did not like intellectual things, on the contrary. But I think I could have been pushed further.

How have you gathered expertise in this area?

Through the Global Talent Network, we help students when they are still in high school. We give some direct training to students on an online platform, and we also give small grants to national organizations who work with talented students. As a part of this support, I talk to those national organizations and learn from them what they do and what works well. Also, as a university professor and researcher, I read papers and talk to researchers on the subject. I combined all these sources in this talk.

You mention specialized schools for gifted children as one way to support them. I can understand this perspective, that students with very specific needs may benefit from learning in a special school. But I feel very enriched because I went to an ordinary, common school with a range of students. Even if no one in my class shared my deep thoughts about books, I could still relate to others and now I am happy I could know different kinds of people at an age when intelligence does not count so much yet. Can you see my point?

Sure. For a gifted kid, school years might not have been a nice experience. You are smart, but often not cool. You may not be socially valued; you also have different interests. Sometimes you are the youngest in the class, because you skipped a grade. For all those and other reasons, gifted kids may be isolated. When they go to a math camp, for example, and meet children with similar interests, they blossom, it makes them happy, it is very good for their wellbeing. I experienced something like that when I was a kid. I felt very happy when I joined a chess club. So, I think it is good for those kids to have opportunities to learn and socialize with other gifted children, but maybe it is not good if they are permanently together only with kids like them. It is good and necessary to have chances to interact with different kinds of people.

Are you cooperating with CERGE-EI on their TALENT project, or this was only an occasional event?

Since the program was launched a year ago, we talk regularly and exchange ideas about research that could be done in this field. I am maybe a bit more interested in the international dimension of support for giftedness, and maybe also more interested in older kids, those heading to universities, while CERGE-EI is more focused on earlier stages of talent development. But there is still quite a bit of overlap, so we share ideas.

Your website mentions research that shows that winners of the Olympiads usually strikingly outperform their fellow students on PhD programs. This is an argument in favor of searching for talent early, because it is possible to predict the future performance of medalists. As a university professor,

can you easily distinguish among your students who is an outstanding talent and who is more average? Can it happen that you overlook somebody and only later it becomes clear that person had a high potential?

It would be interesting to question teachers in earlier grades about this, I think. Currently, I teach mainly undergraduates, and it might not be that easy to see their full potential. But when I lived in Prague and taught at CERGE-EI, I worked with doctoral students and I could observe them for quite a long time, from the moment they applied to a study program to the stage when their research was done and their thesis written. I also saw very talented people who presented amazing research proposals, but did not do much with it afterwards. And conversely, some people who were not very impressive at the beginning, did very well at the end. Of course, we should not adopt thinking like “those kids who were not brilliant at 10 cannot do brilliant things later”, definitely not. My message is instead: if someone is really brilliant at 17, let us make sure to free them from constraints that may hinder their capabilities.

Another study on your website says that people who went to study at good universities abroad produce more papers and become more productive as scientists than those comparable to them who remained in their homeland. Sometimes, the contribution of gifted people to the society is emphasized and even assessed in monetary terms. I wonder if it may not be a bit tricky to assess any person’s value to a community. Gifted people themselves, or at least some of them, do not like to be seen as a valuable commodity, as a resource; they do not want to be burdened with others’ expectations. What is your perspective on this?

Yes, I would never suggest quantifying people’s value. But I might be interested in quantifying the impact of investments. We will surely be asked and want to know ourselves what kind of impact our BIG program has had. We definitely need to know whether this is a good investment, or not. We need to know if doing what we do is a good idea or if we should do something else, instead. For this, we may need some numbers, quantification.

Actually, what we strive to do is to reduce the economical conditioning of the development of talented kids. All the ways to support mathematically talented kids that I listed in my lecture in Prague – tutoring, extra classes, camps, summer schools – are wonderful, but often students have to pay. We try to offer free training to everyone, through our foundation. For example, one of the organizations we work with is based in Mongolia. They have a very good training course that they offer to Mongolian kids who are gifted mathematically, but the organization lacks resources. So, they ask families to pay for their courses. This of course excludes some kids whose families cannot pay. Now, with our grant, they can offer their courses to everyone.



Patrick Gaule is a Swiss-born economist and researcher known for his expertise in labor economics, with a particular focus on immigration, wage inequality, and the economics of education. He graduated from the University of Geneva and obtained his PhD at EPFL (École Polytechnique Fédérale de Lausanne). He started his career as a researcher at the MIT Sloan School of Management, Cambridge, and at Harvard University, United States. In 2012 – 2017 he worked as an Assistant Professor at CERGE-EI in Prague. Since 2021, he has been working as an Associate Professor at the University of Bristol, Bristol, United Kingdom.

Gaule is a co-founder of the Global Talent Lab (GTL) and the Global Talent Network foundation, which aim to identify exceptionally talented students in different stages of their education, and to help them to fulfill their potential and to reach world-class educational opportunities. These initiatives focus their attention on underprivileged students.

CERGE-EI (Center for Economic Research and Graduate Education – Economics Institute) is a joint workplace of Charles University and the Economics Institute of the Czech Academy of Sciences, and promotes modern education and research in economics. CERGE-EI launched the TALENT project in 2023 in cooperation with the RSJ Foundation.