

Honorable provost = student,  
fellow honorary doctors = students,  
dear promoti = students,  
distinguished guests, also students!

We are all students of the arts and sciences. We are students of the mystery called life.  
Learning will not stop and uncertainty will not end.

As honorary doctors we feel deep reverence for Aalto University. We see an institution that stands for learning, working together and never giving up. There is tenacity, sisu, irreverence and a spirit of freedom. Whenever you put down your foot in Otaniemi, you feel lifted up.

We are delighted for every moment we spend here, and today we are elated for the reason for the celebration. Thank you!

It may seem that with age comes greater impact and higher levels of sophistication. But the gray hair many of us honorary doctors sport is not a sign of knowing things. It is a sign of not knowing.

We have only learned not to stop learning.

What we wish to celebrate is the journey - the magical journey from the stubborn certainty of youth to the growing uncertainty of seniority.

Resan inleds då de unga med stor iver skriver in sig på Aalto-universitetet för att lära, göra och skapa viktiga relationer.

Ungdomen har starka synpunkter på världen och ofta stora frågor om sig själva. De ifrågasätter om de hör hemma, om de är tillräckligt fiffiga and om de har vad som krävs för att nå framgång - vad de än menar med ordet framgång.

*The journey starts with the young generation that eagerly enroll at Aalto University to learn, to do, and to form meaningful relationships.*

*They young have firm views of the world and often have big questions about themselves. They wonder whether they will fit in, whether they are smart enough and whether they have what it takes to graduate and become successful - whatever they think that word means to them.*

This feeling of insufficiency may stay with us throughout our lives and it is a great source of energy.

We have learned inside and outside of academia that life is a wonderful maze that we must navigate with insufficient information. The key to progress is

- curiosity,
- tenacity and
- serendipity, in other words the conviction that great things can happen

If you will now for a moment allow a playful application of scientific discovery, I will show you how this is true.

Let's start with **curiosity**. Take any scientist. Or very specifically, take Kurt Gödel, one of the greatest logicians the world ever saw.

In his search for completeness, Gödel found incompleteness.

Gödel reminds us that whatever formal knowledge we acquire, something always remains unprovable. We need to expand our logical universe in order to prove the thinking correct. And when we expand our thinking, we have to expand more.

The provable reality is elusive and not entirely achievable. But curiosity comes close. In fact, curiosity is the only way to expand our awareness.

Secondly we will look at tenacity - the capacity to keep going and get things done.

I am not sure Werner Heisenberg necessarily thought about it that way, but in the spirit of our playfulness, consider how his uncertainty principle may actually teach us about humility and tenacity.

Heisenberg figured out that if you are too focused on position, you won't know momentum.

For humans this means we must stop obsessing with the position we have achieved in order to realize the momentum that will take us further. We must let go of the thought of our position in order to make progress.

Thirdly, for those wondering if they will ever stand out and be remarkable, I offer you the following evidence.

In the Nordic countries we tend to follow the so called Jante law that states that you shall not think yourself better than anyone else. It is a societal norm that tries to make the population more homogeneous.

But Erwin Schrödinger provides in his wave equation beautiful hints that life is much more serendipitous than that. There certainly may be a preordained place for every particle or every human, but there is always some remaining probability that your place is actually entirely elsewhere. You can be different.

There is no black and white truth, but everything operates under a set of probabilities. If society thinks you belong in position A, the wave function will still allow you to rise to position B.

Isn't this actually an indication of the freedom of will? Nature gives you a place but nature will also accept that you occupy another place.

Perhaps we can say that Aalto is a wave function, providing a range of likely outcomes and some unlikely opportunities too.

What these scientists teach us is:

- stay curious,
- always make movement, and
- use your willpower to seize the serendipitous opportunities the world will occasionally throw at you.

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In our current times, we are facing threats of planetary scale. Sustainability challenges grow by the day. The corrupt regime of Russia is trying to destroy a close neighbor, with untold suffering and loss of life as a result.

The war is also upsetting global food supply and prompting vast changes to energy usage in Europe.

Russia's aggression against Ukraine is an affront on the fundamental values we stand for in the free world.

It does not look good.

Yet when the going gets tough, the tough get going.

In times like these, strong institutions such as Aalto University are needed more than ever.

Although the world's troubles are attributable to humans, it is through innovation and technology that we will make it possible to solve them.

Clean and renewable energy is good for the planet and also makes us less dependent on rogue nations. Innovations in food production and healthcare can help to avert crises we are facing. Process and materials technology can bring relief to pressing problems. In the field of computing and digitalization there are endless opportunities for innovation and successful business enterprises that solve planetary problems.

Kun tänään juhlistamme erinomaisia akateemisia ja yhteiskunnallisia saavutuksia, pitäkäämme nuoret mielessä. Meidän tulee tarjota heille ei ainoastaan tukeamme vaan myöskin valtavasti haasteita ja vaikeita tehtäviä.

Nuoret myös tarvitsevat roolimalleja. He kaipaavat mentorointia ja neuvonantoa.

*As we celebrate outstanding academic and societal achievements tonight, we shall keep the young in focus. We should give them not only support and empowerment but also formidable challenges and difficult tasks.*

*The young need people to look up to and mentors to guide them in these uncertain times. That is our role.*

The students of Aalto are wonderfully varied and diverse - in contrast to how it used to be. There are many more women than before and many more students from other cultures and countries than before.

They are enjoying the level playing field that Aalto represents, all working together to create better outcomes.

Frans Edvard Edelheim, born 1848, graduated from this school and would go on to become the chief engineer for the construction of the naval harbor of Mariupol in southern Ukraine in the late 1800s.

And how about now? When it is time to rebuild Ukraine, we can expect many capable engineers and business executives from Aalto to play an important role there.

These students will advance on a serendipitous journey thanks to curiosity, tenacity and working together.

It is the Aalto spirit.

The world belongs to the new generations who will solve problems and build a better society.

The curious mind will never stop learning.

The tenacious person will never stop trying.

And when we believe in amazing outcomes, we make it more likely that they will actually occur.

*Mårten Mickos*