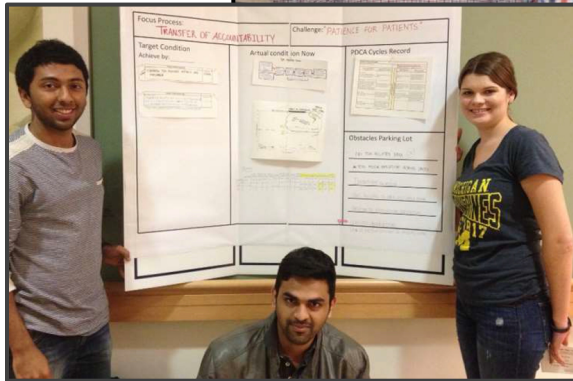


TOYOTA KATA @ UNIVERSITY

<http://polesante.hec.ca/TKatUniversity>

An online source for TK materials

Many professors use Toyota Kata to help teach scientific thinking in their courses



There are several approaches:

- A semester-long Toyota Kata student-project course.
- Introducing Toyota Kata as one topic within a course.
- Using Toyota Kata to give students a way of working within any course.
- Toyota Kata in executive education.

Practicing Toyota Kata serves two important purposes in education

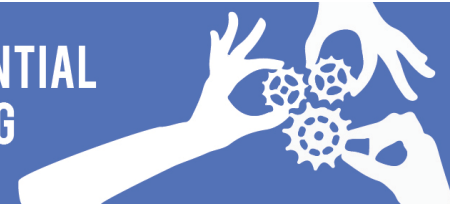
Learning the life skill of **scientific thinking**



Practicing scientific thinking endows students with an ability to navigate uncertainty and develop new solutions.

Learning through **deliberate practice**

**EXPERIENTIAL
LEARNING**



Students don't walk out with new skills based on lecture and homework alone. Developing new behavior and mindset – new habits – takes practice!

Website purpose: Support professors in using Toyota Kata in their courses

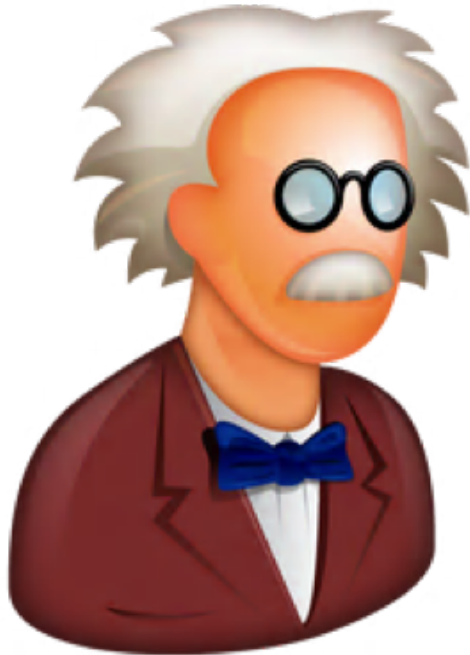


The purpose of the “Toyota Kata at University” website is to share course materials among professors who would like to use Toyota Kata in undergraduate, graduate, community-college & executive-education courses.

- **Please help yourself.** Browse the TK@U website and download any material you find relevant to your teaching and courses: <http://polesante.hec.ca/TKatUniversity>
- **Share your TK materials.** Email any Toyota Kata materials you wish to share to TKatUniversity@hec.ca, so other professors may benefit from your experience. This can be PowerPoint slides, publications, student projects, student theses, simulation games, photos, videos, etc. The material can be in any language.

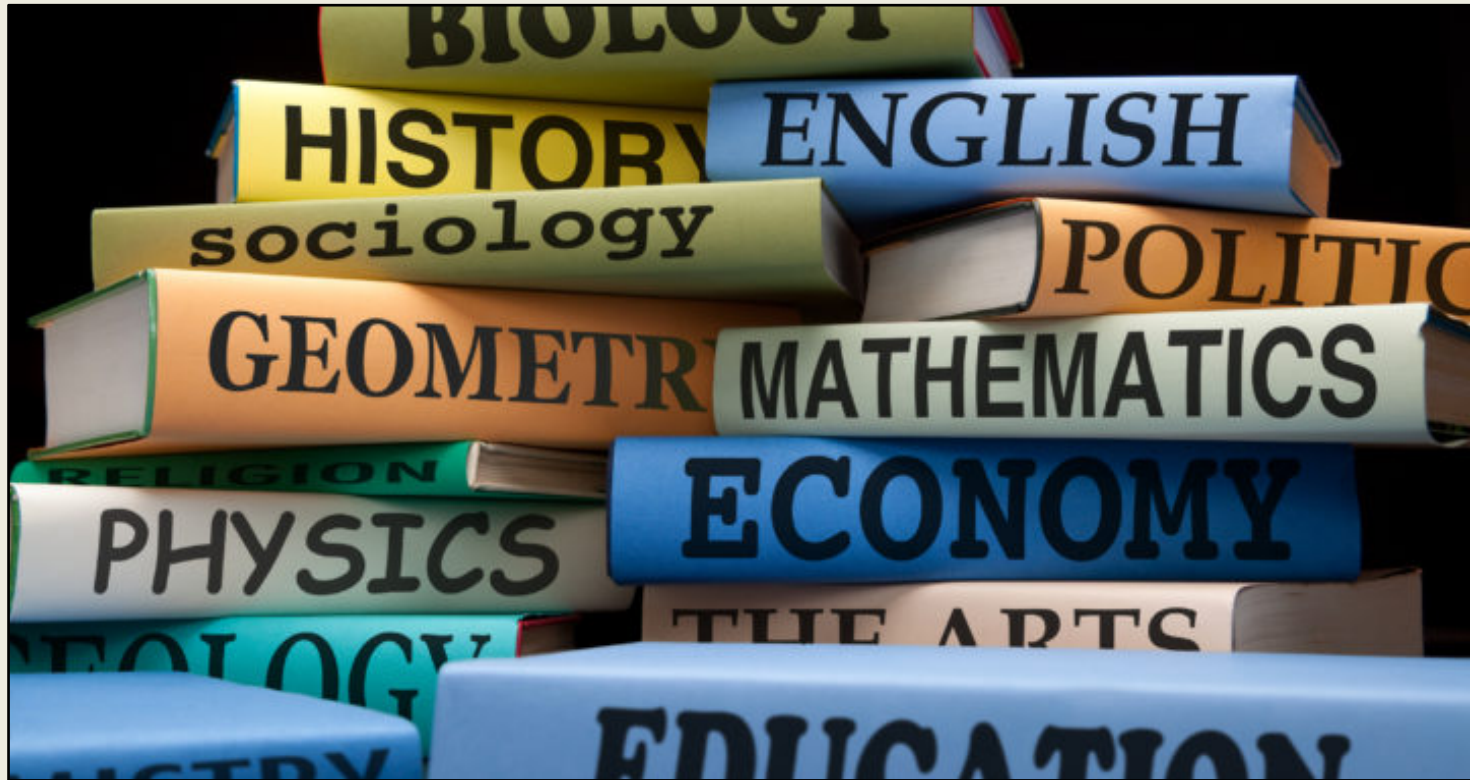
A Little Background Info

I'm a professor with two questions

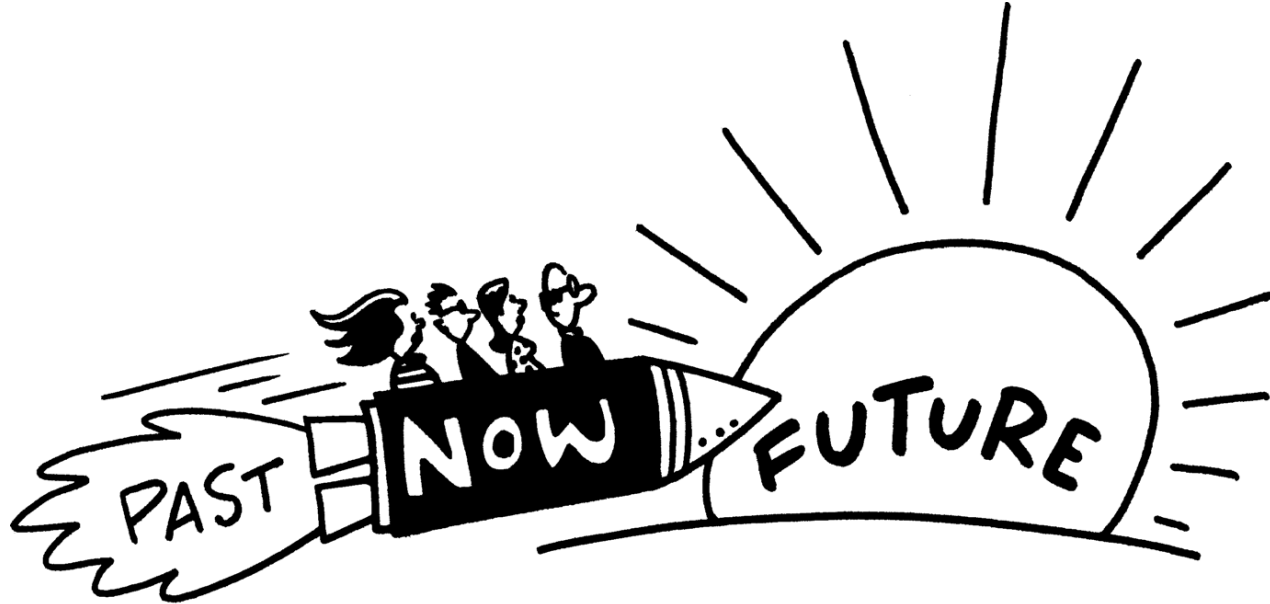


- **What should I teach my students?**
- **How can I teach it?**

**Of course,
there is my particular speciality**



But how do I also best prepare students for *their* future?



- Today's solutions may not fit in the future.
- The path to challenging goals is unpredictable.

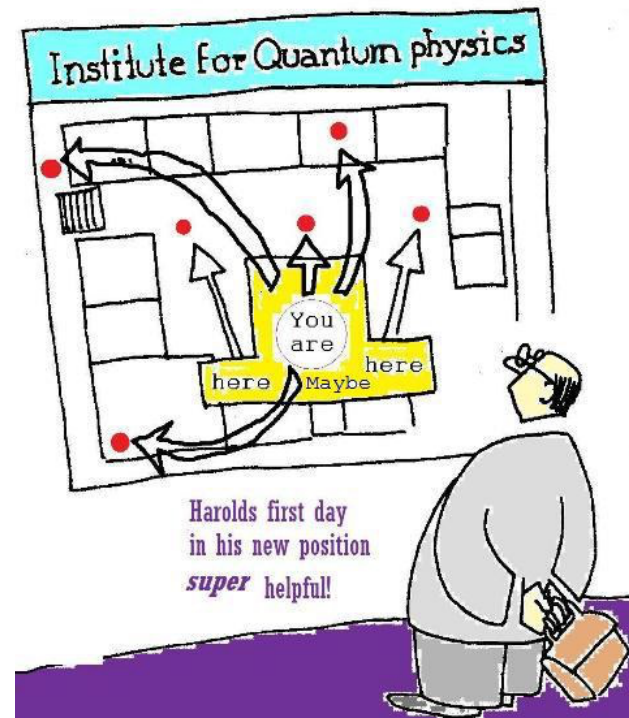
In the last century many jobs disappeared, and in this century the pace is accelerating



The path to challenging goals is unpredictable

The management methods we've been practicing over the last few decades were arguably intended to reduce uncertainty, but the management methods of the future may be as much about being effective and comfortable working within unavoidable uncertainty.

Skills for the the 21st Century involve being able to experiment our way forward to new goals, not just solving problems or improving efficiency.



Realizing 2030: A Divided Vision of the Future

Global business leaders forecast the next era of human-machine partnerships and how they intend to prepare

DELLTechnologies



believe something to the contrary, and stand to miss out on the opportunity to harness automated systems to free-up their time for higher order pursuits with a focus on creativity, education and strategy. **Almost six in ten (56 percent) say schools will need to teach how to learn rather than what to learn to prepare students for jobs that don't exist yet (corroborating IFTF's forecast that 85 percent of jobs that will exist in 2030 haven't been invented yet) - but 44 percent disagree.** These differing viewpoints could make it difficult for business leaders to confidently prepare for a future that's in flux.

<https://www.delltechnologies.com/content/dam/delltechnologies/assets/perspectives/2030/pdf/Realizing-2030-A-Divided-Vision-of-the-Future-Summary.pdf>

So teach the *meta skill* of scientific thinking

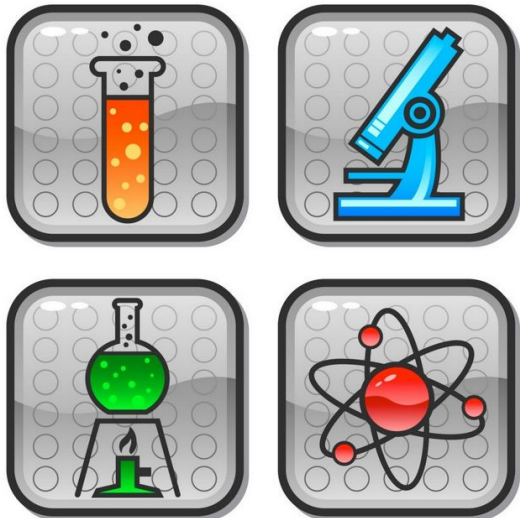
Our best bet is to teach a universal (meta) skill that helps students find their way in any situation, over a lifetime.

Meta skills tell us *how* to do something – how to develop solutions rather than the content of solutions. This means they can be applied to an infinite variety of situations. Since meta skills are transferable across different situations, including ones students haven't experienced before, they can be even more valuable than subject-matter knowledge.

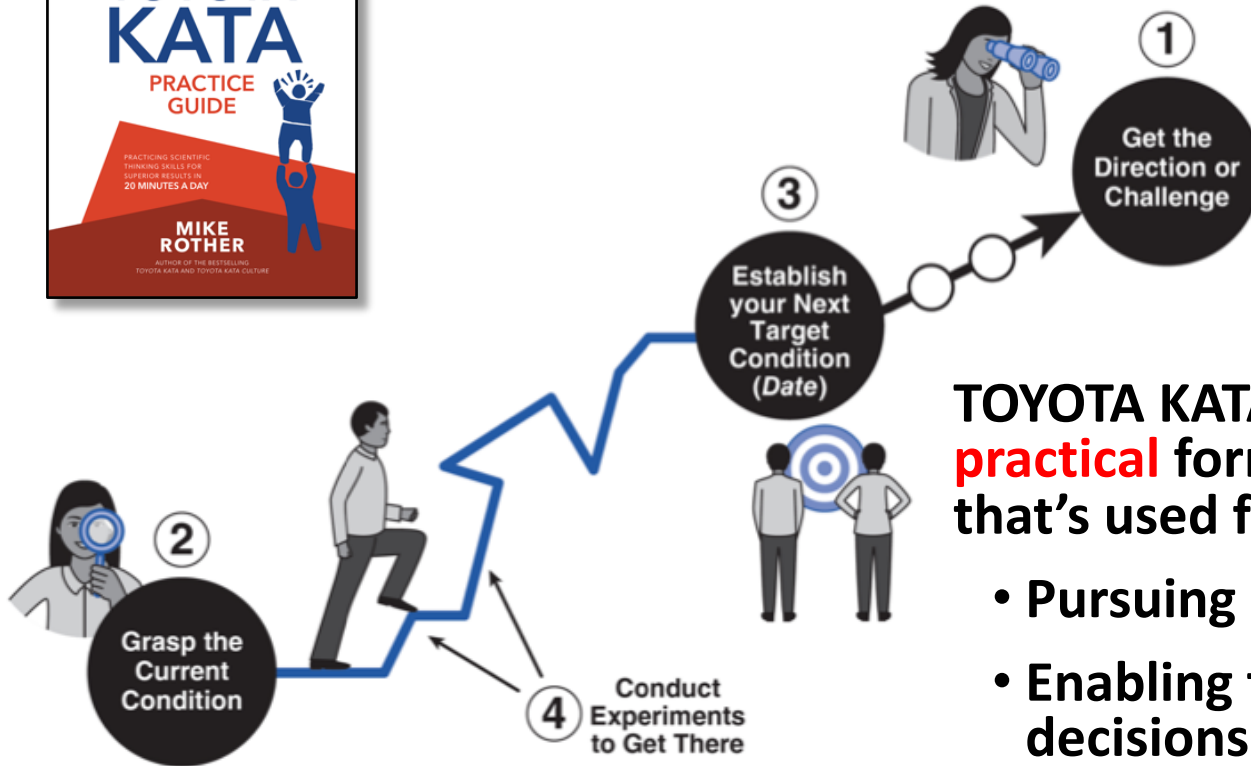
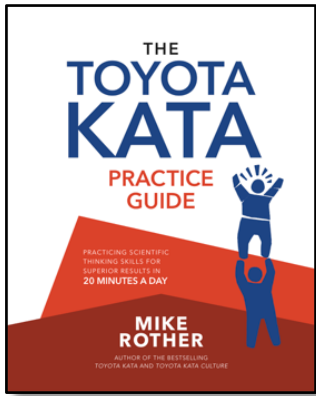


Scientific thinking may be the most effective means currently known for navigating through unpredictable and complex territory toward our goals.

But ... Science is hard to connect with everyday life



Enter **TOYOTA KATA**

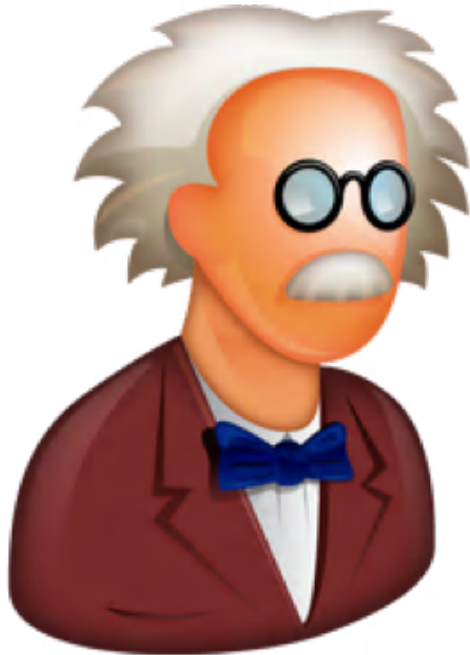


TOYOTA KATA is about practicing a **practical** form of scientific thinking that's used for:

- Pursuing challenging goals.
- Enabling teams to make decisions more autonomously and maneuver situationally.

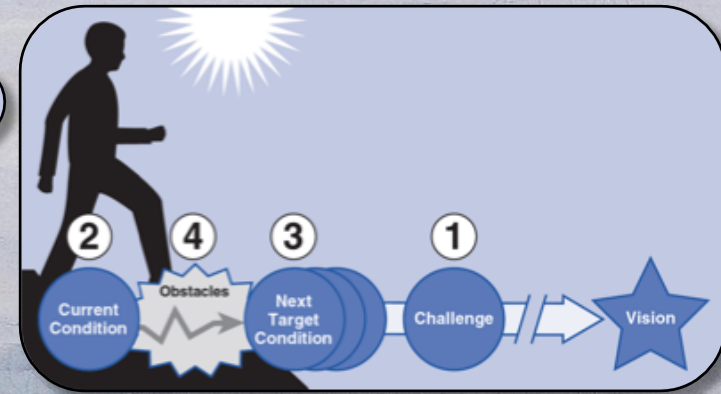
Practicing Toyota Kata turns scientific thinking into a skill that anyone can learn, and everyone will find useful.

I'm a professor with two questions



- What should I teach my students? *Scientific Thinking!*
- How can I teach it? *Through practicing Toyota Kata!*

Change your students' lives by preparing them for *their* future





TOYOTA KATA
AT UNIVERSITY

<http://polesante.hec.ca/TKatUniversity>