

tu-e4060

design & innovation in context

fall 2021 (thursdays 14.00 – 16.00)

@ tuas learning hub atrium

6 ects

your mentor

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operating considerations

Life is full of risks and uncertainties and especially so given present circumstances. Our primary concern at Aalto and my primary concern as your mentor is to ensure, as best we can, an impactful and safe learning experience for you. Customer facing industries, universities among them, are rapidly developing hybrid strategies. Transforming the higher education experience to fully embrace the power of both the physical and digital worlds is both a massive challenge and opportunity.

Operating conditions might change very quickly, but at this moment the evolving redesign of this course will be guided by the following principles:

1. Course meetups for those comfortable meeting face-to-face will be hosted at the Learning Atrium in Tuas Talo (Maarintie 8). For those wanting to join online, meetups will be synced through Zoom.
2. I have uploaded pre-recordings on MyCourses to complement issues covered in our meetups.
3. A significant part of the course is group related involving me deeply as a team mentor, Students in past years said this was the MOST impactful aspect of the experience. I am prepared to meet face-to-face and/or have participants join in online.
4. We are all “kids again” – we are experiencing the world with fresh eyes and creative perspectives. Uncertainty creates nervous energy but, to those who embrace it with creative and open minds, it also creates conditions where transformational opportunities emerge and can be brought to life, albeit in challenging circumstances.

course objectives

By the end of this course, students will:

- Develop a deep appreciation for and exposure to design thinking principles
- Apply these principles to address “customer experience challenges”
- Develop an ability to craft persuasive and engaging messages
- Appreciate that entrepreneurship is a design infused discipline by its very nature
- Be confident and able to apply insights from this course to drive innovation in their own fields of interest

content

This course aims to acquaint students with the design thinking “movement” currently taking place in a wide variety of contexts including established companies, start-ups, not-for-profits and governments. At its core, entrepreneurship is a design driven activity; the entrepreneur attempts - which implies setback and failure - to design a solution to a nagging problem or challenge.

The visual on the face page of this syllabus is a very powerful entrepreneurial paradigm. Do people want it? (DESIRABILITY) Can we make it? (FEASIBILITY) Is it worth making? (VIABILITY) Is it something impactful? (INTEGRITY)

Successful entrepreneurs (and entrepreneurial individuals):

- Spot patterns where others see chaos
- Are grounded in a deep and empathetic understanding of the context within which customers operate
- Prototype potential solutions quickly and cheaply to garner feedback and guide future action
- Trust their instincts and intuition in knowing what customers want even if they are unable to articulate it, read Apple!

To guide your discovery process, we will rely on an approach called effectuation, a set of decision-making principles that **expert entrepreneurs** use in situations of high uncertainty:

- 1) Action is initiated based on means available and not pre-set goals
- 2) Limits of investment both in terms of time and money are set up front
- 3) Opportunities are explored and developed in co-creation with outside parties
- 4) Surprise opens up new possibilities if you are open to reshape the opportunity
- 5) The future is shaped by the actions you take

Using available means as a starting point, expert entrepreneurs create an artifact (idea), set limits on how much time/money to spend evaluating the opportunity potential, engage the outside world with an open mind to shape the opportunity with an aim to secure pre-commitments from some to take an opportunity forward. All the while, they are open to insights from surprises they encounter along the way demonstrating a knack for “turning lemons into lemonade”.

Expert entrepreneurs are the epitome of intentional learners continually honing their skills and abilities by treating every experience, conversation, meeting and moment as a **learning opportunity**. The fuel that drives their intentional learning is adopting a growth mindset that considers intelligence and capability as traits to be developed coupled with a determination to feed their innate curiosity.

Given the inherent uncertainties associated with COVID, effectuation appears to be especially well suited for guiding decisions as we move forward. Individuals with an entrepreneurial mindset are not paralyzed by uncertainty but rather embrace it viewing it as opportunity not a threat.

deliverables & evaluation

Course deliverables involves both **individual tasks (50%)** and **group project (50%)**

Each participant will need to complete the following:

1. Coffee Experience Challenge (20%) (Week 3):

As you may be aware, Starbucks had established two outlets at Helsinki-Vantaa airport; one was closed permanently and the other is closed temporarily. Their flagship store is located at the iconic Aalto designed Academic Bookstore in central Helsinki. Two additional outlets operate in Kamppi and Iso Omena shopping centers. Starbucks had been in partnership with Kesko (K Market) to open more outlets but this initiative was put on hold in late 2020 because "there was insufficient demand". How can a global coffee giant have such a small presence in a coffee fueled country like Finland? Each participant is to put their creative hats on and propose some ideas that Starbucks should consider adopting.

For background, download a copy of "The Coffee Experience" where you will find a candid and critical email written by Howard Schultz, Chairman of the Board at Starbucks. I want each of you to prepare a succinct 1 page memo to Howard proposing what Starbucks should do to recapture the vision and inspiration that made the company one of the most successful IPOs in the 1990s and a \$100+ billion market capitalization company today.

DO NOT BOUND YOUR IMAGINATION TO THE ISSUES RAISED IN THE (DATED) MEMO AS MANY OF THEM HAVE ALREADY BEEN ADDRESSED IN SOME RESPECT.

In addition to the one page memo, I want each of you to prepare a presentation for Howard (5 minutes maximum). Append copies of your proposed slides to your memo. I WANT TO SEE HIGHLY VISUAL, IMAGINATIVE AND CAPTIVATING WORK.

2. Coffee Experience Presentation/Critiques (10%):

On a voluntary, first come, first served basis, you will have an opportunity to take the "stage" and make a presentation to the class. A strict 5 minute time limit will be imposed and there will be an additional 5 minutes allocated for questions from the audience.

OR

If you do not present, you will be required to submit detailed and thoughtful critiques on any **TWO (2)** of the presentations.

3. Reflective Essay (20%)

Download a copy of the article "What Makes Entrepreneurs Entrepreneurial?" by Saras Sarasvathy from:

<http://www.effectuation.org/sites/default/files/documents/what-makes-entrepreneurs-entrepreneurial-sarasvathy.pdf>

Based on insights from reading through the substantial resources that I have provided you on the course web, I want each of you to write a reflective piece to support the answer "**because they embrace design thinking**" to the question posed by Saras.

WORD LIMIT: 2000 (PDF)

Longevity is the “New Normal” (Group Task 50%)

Building on the insights gained from the **Opportunity Prototyping** course, the **group task** will be focused on the challenges (opportunities in disguise) being experienced in societies around the world as we adapt to a rapidly evolving “new” normal.

When we speak of **normal**, we think of something that “conforms” to a standard, common type, or regarded as regular or usual in nature. Adding the modifier “**new**” denotes a process of change from an existing to an imagined future state. This is exactly the context within which creativity is most needed and fresh perspectives can flourish.

Look no further than the context in which you are currently immersed. The “normal” world of higher education has for a long time been ripe for disruption according to the late Harvard Business School Professor Clayton Christensen, author of *Disrupting Class* (a book published in 2008 by the way!). In an opinion piece published in the *New York Times* long before COVID took hold, he wrote:

“Historically, higher education has avoided competitive disruption. One reason for this past immunity is the power of prestige in the higher education marketplace, where the quality of the product is hard to measure. In the absence of comparable measures of what universities produce for their students, the well-respected institutions have a natural (read networking) advantage. A related stabilizing force is the barrier to disruptive innovation created by the accreditation process which in the past made **conformance to tradition** the price of entry into the industry.”

And then an unexpected storm front (COVID) moved in ...

**“The notice went out on 6 March, a Friday afternoon. All classes at the University of Washington in Seattle, the city then the US epicenter of the outbreak of COVID19 – would shift online the following Monday. Instructors scrambled to set up remote learning options for more than 40.000 students (over a weekend).”
Nature (2020)**

We are in the midst of navigating a stressful period of uncertainty and disruption. Consider the following:

- Governments worldwide have been responding with relief and stimulus spending that according to Statista (2021) have pushed the Global Government Fiscal Balance (as a % of GDP) from -3,9% (2019) to -13,9% (2020) and “improving” to only -8,2% (2021). **Can government advance societal transformation?**
- Combined with a slump in tax revenues, this translates into a worldwide \$10 trillion deficit in 2020 growing to \$30 trillion by 2023 (McKinsey July 2020). **Can government pay for this transformation?**

- As reported by CNBC (7 July 2021), the OECD estimates that COVID has resulted in 22 million job losses in advanced economies despite job retention schemes that kept 21 million employed. The expectation is that a return to pre-pandemic employment levels in advanced economies will not happen until late 2023. And recall, In the aftermath of the 2008 financial crisis, youth unemployment took a decade to recover. **What are the jobs to be done post pandemic?**
- As of 5th October, 46% of the world's population has received at least one dose of COVID-19 vaccine. While many developed economies are close to reaching levels of herd immunity (including Finland), **only 2,3% of individuals in low-income countries have received at least one dose to date.** To achieve 70% global vaccination coverage will require 11 billion doses. At the moment, we are over halfway there but with existing production rates, efforts cannot ramp up until 2023.

“New Normal” of Longevity

While the pandemic has focused our minds on how quickly and dramatically situations can change, profound transformative forces also appear as powerful undercurrents, one of which being that are living longer lives.

In **The 100-Year Life: Living and Working in an Age of Longevity**, Lynda Gratton and Andrew Scott think through some of the implications for what they term “the gift of longer life”. Consider this, my father has a 1:33 chance of living to 100. 28 years later, my odds increased to 1:10. 35 years later, my son's odds improved to 1:5. And females are expected to outlive males; my wife 1:5 and talk about long odds, my late grandmother lived to almost 109!

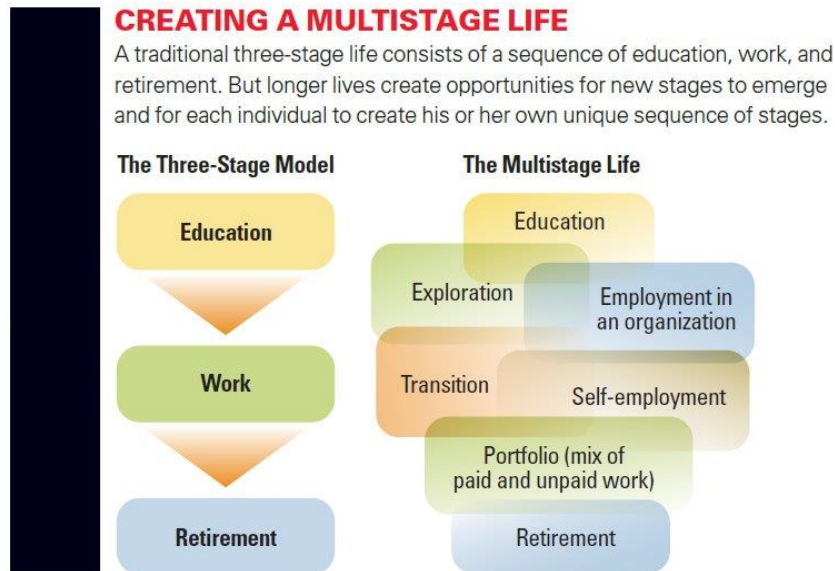
A link to an extract of the book is here:

<https://www.100yearlife.com/resourceposts/read-an-extract-of-the-book/>

Check out your “odds” of becoming a centenarian here:

<https://discovertheodds.com/what-are-the-odds-of-living-to-100/>

Creating what they call a **Multistage Life** is an imperative because there is **more time to fill** (we are living longer and longer), **endless opportunities available to fill that time** and the challenge associated with **financing longer lifespans**, particularly given the systemic and sustained shocks to government budgets of COVID-19. The elements of a multistage life are captured in this visual:



Many aspects of current societal design in developed economies seem to be firmly anchored in Three-Stage Model thinking. Go to school, go to work and then retire. Straightforward enough, but ...

- In a recent study, the overriding priority for individuals to go to universities is to acquire both knowledge and skills to improve their career prospects: <https://www.elucian.com/assets/en/white-paper/credential-clout-survey.pdf> But, as the study points out, there appears to be a big disjoint in terms of skills development. Moreover, when you factor in longevity, what is the shelf life of knowledge? The Multistage Life model has a period of exploration that implies choices (plural) yet most university programs often focus on choice (singular). For example, you choose to enroll in **a** Mechanical Engineering program, you choose **a** major and choose **a** thesis topic (lots of **a**'s!). For an insightful perspective on prototyping possible life paths have a look at: <https://designingyour.life>
- NY Times awarding winning opinion columnist, Thomas Friedman, forecasts a revolution in the concepts of education and work as we know it post pandemic. Continual learning and skills development will become the "new pension". The full article is in the course home page.
- According to the US Department of Labor, individuals (18-50 years old) will have **12 jobs** on average <https://www.bls.gov/news.release/pdf/nlsoy.pdf> This number is seriously understated given the lower and upper age bounds of those surveyed! My grandfather had 1, my father 2 and by my count I have had 13, so far!
- Pension systems were created in the mid 20th century and designed for work patterns and life expectancy at the time. The design of pension systems continually evolves, albeit slowly, to deal with the implications associated with changes in work patterns and increased longevity. System sustainability is crucial but are we missing even a bigger opportunity, does the concept of retirement need a rethink? As opposed to viewing retirement as an "off/on" switch (binary lighting) should we consider the possibilities of a "dimmer" switch (multivariate lighting)?

Embracing a multistage life frame implies complexity and uncertainty but, in essence, is a creative endeavor full of both possibilities and opportunities to proactively develop that most precious asset, you. Effectual entrepreneurs actively create the future by asking “what if?” and “why not?” as opposed to “why bother?”

You have complete freedom to interpret the brief “rethink the concept of longevity” any way you want. You can focus on any stage(s) of the Multistage Life of interest. To guide your ideation efforts, you will conduct empathy interviews, ideally across a spectrum of interviewees in different stages of the Multistage Life. For example, if your group focuses on the retirement stage, it would be invaluable to garner insights from individuals in and/or soon approaching that stage of life. We are all immersed in a transgenerational challenge!

Opportunities never appear as pre-packaged Ikea furniture with clear assembly instructions. Together we will uncover a destination and create a roadmap – that is where the key learning of the course lies. You will discover that good ideas are not necessarily the same as genuine opportunities and together we will work through this challenge.

Time for a Rethink

In the Opportunity Prototyping course, groups identified and explored an “ideation nugget” for the challenge **The “New Normal” of Longevity**. They had complete freedom to explore any domain of interest to them.

In Design & Innovation in Context, you will be building on the insights of this talented group to develop a proposal that meets the “desirability” “feasibility” and “viability” tests. Customers want this to happen, we have the tools and technologies available to make it possible (perhaps with refinements) and it makes good “business sense” to implement.

Presentation materials from Opportunity Prototyping will be uploaded into MyCourses as a resource for you. During our first session, we will speak about the overarching themes identified in that body of work.

YOU WILL BE WORKING ON THIS TASK IN GROUPS OF 6. AS IN OPPORTUNITY PROTOTYPING, I WILL BE JOINING EACH TEAM AS A MENTOR.

The Presentation

- 1) Stimulated by the insights from your colleagues in Opportunity Prototyping and your own ideation as a group, each team will quickly devise and deploy a design driven strategy to explore an ideation nugget and develop it into a prototype. You have complete freedom to interpret the brief.
- 2) Each team will be allocated private time with me “in camera” where I will provide you with detailed and thoughtful critique. This method proved to be the most valuable and impactful learning experience for course participants in previous years and addresses a very real need for students to develop the ability to create and deliver high impact messages.
- 3) Final presentations will be in the form of Pecha Kucha – a highly visual story telling format that requires you to communicate messages in 20 second sound bites. Some examples and guidelines of this format can be found at: www.pechakucha.org.
- 4) **ABOVE ALL ELSE HAVE FUN WITH THIS AND DON'T CONSIDER IT A “TASK”!**

Schedule of Coming Attractions (subject to revision)

4 November	Course Introduction From Design Thinking to Design Doing
11 November	Empathetic Research Methods
18 November	Coffee Experience Challenge
25 November	Rapid Opportunity Prototyping
2 December	Team Consultations
9 December	Final Presentations