



tu-e4040 opportunity prototyping fall 2018 (tuesdays 14.00 – 16.00)

3 ects

dr peter kelly

senior lecturer, aalto university
visiting professor of business, trinity college dublin
visiting professor of design, mada, pontificia universidad de chile
visiting faculty, sydney school of entrepreneurship, australia

my habitat	tuas 2168 (next to avp space)
my handles	+358 41 503 4508 (mobile)
	theideastudio (skype)
	peter.kelly@aalto.fi

overview

At its core, the entrepreneurial process deals with dynamic challenges faced by individuals who wish to pursue an opportunity but do not have the necessary resources to hand. Many individuals mistakenly equate entrepreneurship with starting an independent business of their own. This may very well be the most appropriate way to pursue an opportunity but entrepreneurial process thinking is context blind; it can happen in new ventures, existing businesses, family businesses, not-for-profit initiatives, in fact anywhere where opportunity pursuit is bounded by resource constraints.

The design of this course is deliberately provocative and challenges much of the conventional wisdom as to the theory and practice of entrepreneurship:

- 1) In essence, the entrepreneurial process is an exercise in design thinking; how to create a compelling solution to a customer's problem. Perhaps more than any other discipline, design looks at problems from a deeply customer empathetic perspective.
- 2) The linear logic of "have idea", "write plan", "raise money" is entirely misplaced. Ideation is defined as a process of forming ideas or images --- note the visual imagery to design disciplines. In my experience, too little effort is placed on creatively exploring how problems can be solved from

the outset. Piquing the imagination of others is the hallmark of individuals that can and do push innovative solutions forward.

- 3) Pursuing opportunities is a tough endeavor; resource providers are skeptical as are target customers. Anyone can do it but the alignment of personalities, opportunities and resources rarely fall into place as neatly and quickly as aspiring entrepreneurs hope. The fear of failure is often a big inhibitor for individuals to step out of their comfort zone. One of the greatest innovators of all time, Thomas Edison, considered failure as learning insights. In keeping with this spirit, the philosophy of the course is "failure tolerant zone".

course objectives

We will introduce you to an approach called effectuation, a set of decision-making principles that **expert entrepreneurs** use in situations of 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.

Through a combination of practical exercises, case studies and masterclasses, the aim is for students to gain:

- 1) Insights into the effectual mode of thinking
- 2) A mastery of the skills necessary to distinguish between ideas and opportunities
- 3) Confidence in communicating with impact
- 4) An appreciation for what it entails to be an entrepreneur

deliverables & evaluation

The design of the course involves both **individual tasks** and a **group assignment**.

Each participant will need to complete the following:

1. For the R&R case (**due at the beginning of class on 25 September 2018**), address the question "To what extent does Robert Reiss behave according to the principles of effectuation?" (4 pages maximum excluding exhibits) **20%**

2. Watch the “Mission to the Edge of Space: The Inside Story of Red Bull Stratos (2 hour video) at: <http://www.redbull.tv/film/AP-1KERSA1V52111/mission-to-the-edge-of-space> - and address the following question: “What insights can aspiring entrepreneurs take away from the Red Bull Stratos project to guide their pursuit of entrepreneurial opportunity? (4 pages maximum excluding exhibits) **Due by 16.00 MyCourses Friday 12.10.2018 20%**

3. **Ideation Learning Diary** - to gain insights into the process of ideation I would like you to provide me with a personal (your own words) perspective on how you and your group approached the task of Rethinking the Concept of Banking. What worked especially well and why? What aspects did not work well at all and why? What would you have done differently? **In my experience, keeping brief notes as you go through the process stimulates and enhances the reflection process. There is no page limit per se but you get out of it what you put into it! Due by Friday 19.10.2018 10%**

Rethink the Concept of “Banking” (Group Task 50%)

The **group task** will be discussed at length in the introductory session but will be focused on the challenges (opportunities in disguise) presented by the disruptions experienced in banking. The disruptive signals have been evident for some time. As far back as 1994 when Bill Gates stated: “Banking is essential – banks are not!”

There is a wealth of discussion and insights on a variety of topics. A treasure trove of material has been uploaded onto MyCourses for your reference. To wet your appetite, consider the following:

The Changing Character of “Cash”

- By some estimates, Starbucks customers maintain more than \$1 billion on their loyalty cards exceeding the deposit holdings of many banks and that 30% of all transactions are made with their own “star” transaction currency. We may be beginning to see the emergence of **“branded” currency**; a retro movement when you consider that in the US in 1860, there were 8,000 different kinds of banknotes in circulation, issued by 1,600 corporations with government responsible for only 4% of the total money supply.

- **Currency is disappearing.** In Sweden – 2% of all transactions are in cash and expected to drop to ½% by 2020 according to CapGemini. Retailers are not required by law to take cash so many have adopted a “no cash accepted” policy. 900 of Sweden’s 1,600 bank branches do not carry cash at all. In many rural areas there are no ATMs despite strong resistance from elderly customers who want the option of transacting in cash.

What Does a “Bank” Look Like?

- According to Bain Consulting, if Amazon became a bank it would be the third largest in the US by customer base (70m), save \$250m in credit card interchange fees annually, and appeal to a quarter of Amazon Alexa users. Another study of Amazon Prime users showed strong interest (50%-60%) to maintain a primary or checking account with Amazon if offered.

- According to a recent startup, Beam (www.meetbeam.com), 70% of bank profits are made from the spread between loan and deposit rates* (*0.06% on average according to FDIC). Beam, which is currently in beta, promises up to 4% rate on deposits maintained by a FDIC insured banking partner dependent on how much is deposited, the level of user interaction with the service, and the number of referrals made by users. There are currently more than 120.000 people on the waiting list! As a side note, the FDIC (federal deposit insurance body) currently estimates the total deposit base in the US to be \$12 trillion!
- N26 (www.n26.com) is an appealing option for freelance business owners who can open up a mobile business account in a matter of minutes and are being joined by a growing list of startups like Qonto and Ibanfirst. Some estimates in the US show that 40% of the workforce is independent freelancers and growing. Lacking steady employment, freelancers often are considered not credit worthy.

Changing Interfaces – Where Have All the Branches Gone?

- The number of retail “brick and mortar” branches in the US has dropped to less than 90.000 in 2017 with some estimates of a further 20% cut in the next 5 years as banks move away from a “branch on every corner” to a “anytime, anywhere access” strategy. **That is not to say that branches are going away completely but the experience within them will dramatically change.** Banks have discovered an attractive real estate opportunity in selling on these properties that are often located in heavy retail traffic locations and incorporating signature features like vaults and drive through windows that are especially useful for restaurants.

The Rise of Fintech, Blockchain, Cryptocurrency

- The fintech phenomenon is, in fact, not new and been around for 15-20 years. According to Venture Scanner, 3.750 Fintech companies were founded 2008-2017. Two-thirds of these companies were founded in 2012-2015 with a dramatic dip evident in 2017 (41 startups). The bulk of activity in the banking & capital markets sector is payments and deposits/lending related.
- My former employer TD Bank Group has set aside \$3.5 million from its Fintech investment pool to finance and support startup patent applications without requiring equity in return as a basis for building partnerships with cutting edge outsiders.
- In a report **The Future of Blockchain Tech**, cryptographically secure communication sets to disrupt payments, clearance, security and credit markets:
 - Cross border payments incur average charges of 7,68% and represent 40% of global payment transaction revenues in 2016
 - Banks estimate that they would save \$20 billion with blockchain in the cost of clearance and settlement activity
 - Blockchain is also disrupting fundraising markets with the introduction of ICOs (Initial Coin Offerings) – over \$1,2 billion was raised this way in December 2017

What Do Consumers Want?

- According to a survey conducted by CGI, the Top 5 Wants of Bank Customers are:
 - Reward me for my business (81%)
 - Give me "anytime, anyplace" access to my balance (61%)
 - See me as a person (58%)
 - Provide me with wealth-building advice (55%)
 - Show what I'm spending on and how to save (52%)
- In a study published by Contagious
 - 36% of 25-34 year olds in the US would find it more useful to receive change in the form of mobile credit than currency
 - 27% would be happy to use a currency issued by a private brand
 - 36% would be comfortable if sovereign currencies were replaced altogether
- According to the ABA, **millennials** (those born between 1980 and 2000):
 - Are largest generation in American history (83.5 million strong)
 - By 2022, will make up over 44% of workforce
 - 75% of college graduates have student loan debt (\$29,000)
 - 86% put money into savings each month
 - Set to inherit \$30 trillion over next 30-40 years
- According to the **Millennial Disruption Index**, banking ranked highest for risk of disruption ahead of household goods and discount retail. More than 10,000 millennials (GenY or "GenWhy") were surveyed:
 - 53% don't think their bank offers anything different from other banks
 - 71% would rather go see a dentist than visit a bank
 - 33% are open to switching banks in the next three months
 - 70% think that we access our money and pay for things will be completely different
 - 33% believe they won't need a bank at all
 - 75% would be excited by new financial offerings from Google, Amazon, PayPal or Square than from their own bank
- According to research commissioned by the American Banking Foundation, **Baby Boomers** (those born between 1946 and 1964):
 - Hold 2/3 of all deposits in the US
 - 50% have more than \$100,000 in investable assets
 - 58% have NEVER switched banks
 - 48% consider that their bank has their best interests in mind
 - 24% are confident they have enough money to last retirement
 - 71% use online banking services at least once a week
 - 8% over 61 year olds use mobile banking

- “**Age-friendly banking**” is an opportunity gaining more attention. “Older” clients are often reluctant adopters of technology, prefer a high-touch (face-to-face) interface, and for those on the right side of the longevity curve – want to transact in cash. These customers represent a very loyal and large deposit base whose needs have not been properly catered to or addressed in the race to digitization.

Design Thinking Permeates Banking

- CapGemini estimates that almost 90% of financial services either have an **innovation lab** or are **carving out space for innovation** including giants like Wells Fargo and BBVA. The Wells Fargo Plush Pony has been transformed into an Internet of Things (IoT) bank that helps parents educate their children about saving. BBVA has even established a program called “Design Thinking for Leaders” to support their efforts in developing new and compelling offerings for their clients.
- When considered as a social network, the customer base of banks dwarfs that of established **crowdfunding** players such as Kickstarter (10m) or Indiegogo (9m). A global player like Banco Santander has 125m global customers whereas a regional player like Nordea has 10m. Nordea Both Santander and Nordea have joined the crowdfunding space working with outside parties, but developments are still nascent.

Some Local Market Insights

- SOK (Sokos, Prisma, S-Market) established a bank (**S-Pankki**) ten years ago, the “**supermarket bank**” that:
 - Now has 3 million customers
 - Offers basic banking services free of charge (current account, online bank, and Visa/Debit cards)
 - A mobile app that has been downloaded 1,35 million times
 - Generated profits of €16 million in 2017
- Tracing its roots back to 1820, **Nordea** highlights how banking has changed:
 - In 1848, liquor was accepted as security for loans as it was deemed “not easily perishable”
 - In the 1900s, bank tellers made home visits to collect savings
 - In the 1950s, bank buses provided service to areas where there were no branches
 - the first bank in the world to introduce mobile banking in 1986 (KotiSYP)
 - Established an accelerator programme for Fintech startups in 2015
 - Launched ApplePay in 2018
 - Nordea’s customer base has remained stable at 11 million but it has reduced its branch footprint by 55% since 2010 (650 branches in 2017)

The banking experience is being reshaped in fundamental ways driven by:

- Behavioral dynamics, particularly among millennial consumers who are tech savvy and willing to experiment with new approaches to banking in entirely different ways than older generations.
- Developments in technology in a wide variety of fields including big data analytics, artificial intelligence, machine learning, blockchain, cryptocurrency, cognitive technology, augmented reality, biometric security, to name a few.
- Increasing attention paid to the profits generated by banks, a target that has spurred innovation and startup activity; in large part the regulatory and legislative oversight so necessary in banking also represents the biggest challenge faced by established players from acting in an agile way.

You will have **complete freedom to interpret the brief** “rethink the concept of bank” any way you like be it:

- An offering that is needed and does not exist today
- Ideas that build customer loyalty
- Ideas that leverage the bank's network of customer relationships
- How services are delivered to customers
- How services look to customers (digital and/or physical interfaces)
- And anything else that tickles your fancy (and mine)

The opportunity nugget need not be a start-up. I suspect there are many ideas that can be explored and implemented as experiments within existing banks. You will discover that good ideas are not necessarily the same as genuine opportunities and together we will work through this challenge.

The Team

- 1) You will be working in teams of ideally 6 students – “founding teams” display diversity and this will be no different in terms of gender, nationality and discipline (to the extent possible);
- 2) I will join each team as a mentor providing constructive (some may consider it brutal) feedback throughout the process.

The Task

- 1) By the end of the course, your team should be prepared to present an opportunity nugget to the class; the challenge every entrepreneur faces is that opportunities are perceived and the lens through which they are seen are utterly unique to every person. Successful entrepreneurs explore possibilities (creativity) **before** deciding what to do (innovation). The best opportunities are those that resonate deeply with the passions, skills, experience and networks of the team (is it worth doing?) **and** can be activated (is it doable?)
- 2) As mentor, I will guide teams through the discovery process and we will work “in camera”; I will be the only person who knows what each team is

- 3) Given the number of participants in the class, the final session will be set up as a demo showcase a chance to informally pitch and with the aid of prototypes (if appropriate) demonstrate your opportunity nugget.
- 4) In support of your demo showcase, each team will prepare a Pecha Kucha presentation for me – 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.
- 5) **ABOVE ALL ELSE HAVE FUN WITH THIS AND DON'T CONSIDER IT A "TASK"!**

Schedule of Coming Attractions (subject to revision)
ALL SESSIONS WILL BE HELD IN AALTO DESIGN FACTORY (STAGE)

11 September	Course Introduction / Teambuilding Networking With Confidence Masterclass
18 September	Effectuation Introduction Co-Creation Exercise
25 September	Effectuation in Action Case: R&R (Harvard Business School) Prototyping Exercise
2 October	The Art of Lean
9 October	Team Consultations
16 October	Final presentations