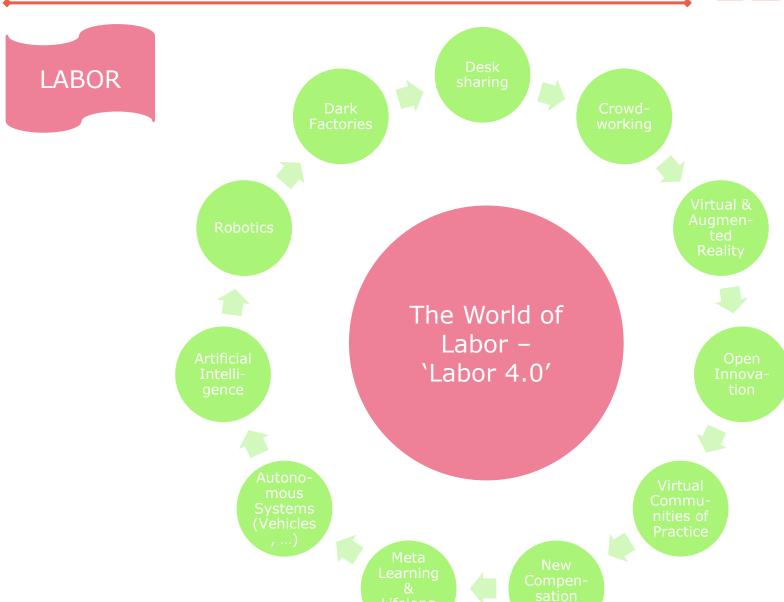




Let's talk about the new age...

Welcome to the world we('ll) live in...





Working in new labor spheres...



Who is more effective?

Employee #1 works 40 hours a week in 9-to-5 mode. (S)He looks forward to the after-work hours and the vacation time. Work is scheduled and regular meetings allow a sound coordination. The boss decides what to do and when to do it.

Employee #2 works 30 hours a week. Nobody really cares when and where (s)he works. However, it is important that (s)he is available and delivering output. Output is roughly defined as something useful to the company.









Secretary in 1950





Secretary in 1950



Secretary in 1975





Secretary in 1950



Secretary in 1975



Secretary = Office Manager in 2000





Secretary in 1950



Secretary in 1975



Secretary = Office Manager in 2000



'Secretary' in 2025?

Manufacturing & Change: from ugly ...





From 'ugly factories' to 'dark factories'







Q	Tentative A
Where will people be stronger and/or better than robots and machines?	
Where do people find their place in the new era of labor?	
What does it mean in terms of education and managing career paths?	



Q	Tentative A
Where will people be stronger and/or better than robots and machines?	Values & beliefsEmpathyIndependent thinking & creativityCollaboration
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Q	Tentative A
Where will people be stronger and/or better than robots and machines?	Values & beliefsEmpathyIndependent thinking & creativityCollaboration
Where do people find their place in the new era of labor?	 Replaceable: logic, repetition, routine, Well positioned: Defining what machines have to do (& programming machines) Creative work Interpretive work
What does it mean in terms of education and managing career paths?	



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Where do people find their place in the new era of labor?	 Replaceable: logic, repetition, routine, Well positioned: Defining what machines have to do (& programming machines) Creative work Interpretive work
What does it mean in terms of education and managing career paths?	 New content in education programs (wisdom, empathy rather than knowledge) New ways of teaching The own career path as a creative, forward-looking endeavor

Welcome to the world we('ll) live in...



BUSINESS

The Business World - Value Chains or Platforms?

Business in value chains

Support
Activities

Technology Development

Procurement

Inbound
Logistics

Operations
Outbound
Logistics

And Sales

Primary Activities

Source: Porter (1985: 36)



- One-sided markets
- Relationship logic

Business on (electronic) platforms





- Two/Multi-sided markets
- Marketplace logic

Business 4.0 - Cornerstones





Welcome to the world we('ll) live in...



CONTEXT

The Context – a VUCA World



Rules of thumb



- All you can digitize, will be digitized sooner or later...
- Not all the things robots can do, will finally be done by robots at least as long as we live...
- Robots will replace many employees not today, but tomorrow and the day after tomorrow, after follow-up steps of maturation
- It is important for the role of people to stay ahead of developments and to shape them – and to make machines & robots the useful support it always have been
- There will be still much, maybe enough room for human labor, but...
 - ... not for everybody
 - ... not everywhere the scope decreases
- Entrepreneurial thinking and action matters it shapes the future and competition

Three phases of competition for the future



The Three Phases of Competition for the Future

Source: Hamel/Prahalad 1994, p. 47

Intellectual Leadership	Management of Migration Paths	Competition for Market Share
Gaining industry foresight by probing deeply into industry drivers.	Preemptively building core competencies, exploring alternate product concepts,	Building a worldwide supplier network.
Developing a creative point of view about the	and reconfiguring the customer interface.	Crafting an appropriate market positioning strategy.
potential evolution of:functionalitycore competencies	Assembling and managing the necessary coalition of industry participants.	Preempting competitors in critical markets.
customer interface Summarizing this point of view in a "etratogic	Forcing competitors onto longer and more expensive migration paths.	Maximizing efficiency and productivity.
view in a "strategic architecture".	-	Managing competitive interaction.



Entrepreneurship 4.0 - Founding startups in times of Disruption

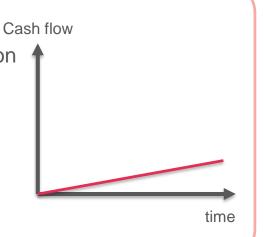
Self-Employment vs. Startups



Self-Employment



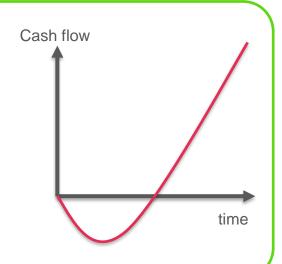
- Local/regional markets
- Low growth
- Imitative or low innovative ambition
- Low budget
- Limited risks
- Typical examples:
 - Restaurant
 - Craftsmen
 - Consulting Agency
 - Hairdresser



Startups

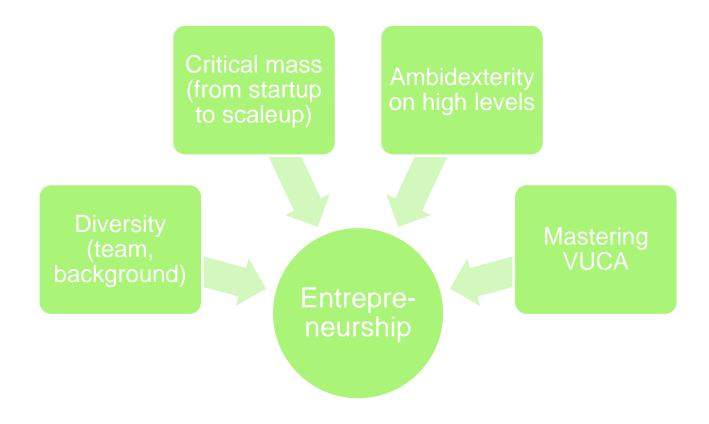


- Global Markets
- Scalable business model
- Innovative ambition
- Big money model
- External investors
- High risks
- Typical examples:
 - Snapchat
 - HelloFresh
 - Facebook



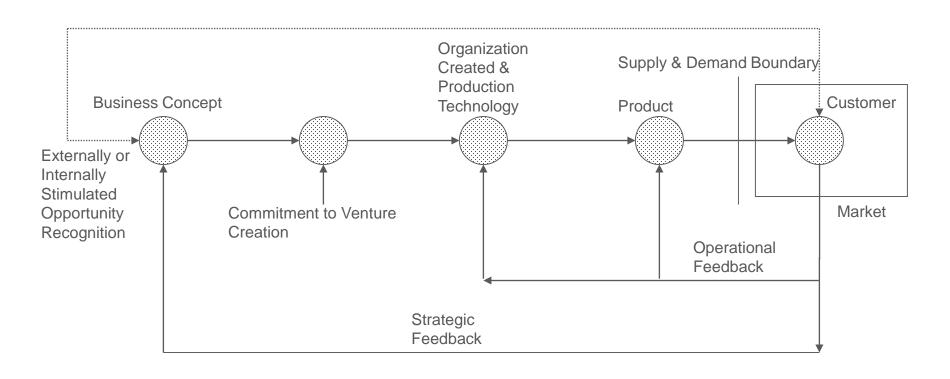
The Recent Pressures on Entrepreneurship





Classical entrepreneurship models lose their cut... LEMEX







Source: Bhave (1994: 235)

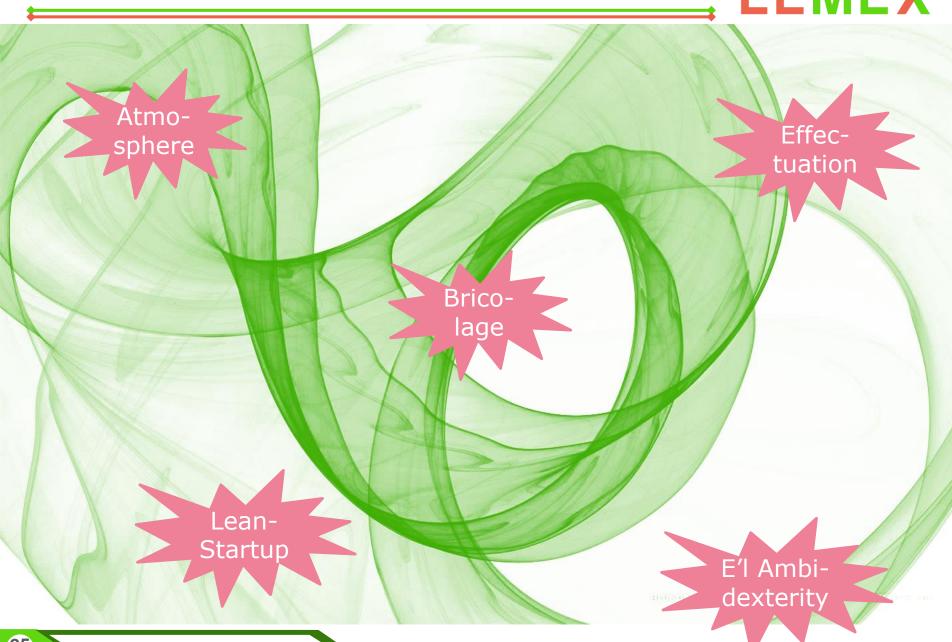
What's wrong with them?



- 1 (quasi-)linear and sequential thinking
 - 2 customer validation much too late
 - 3 huge investments much too early
 - 4 belief in the power of plans
 - 5 limited open-mindedness
 - from exploration to exploitation with no real return
- 7 no real value co-creation

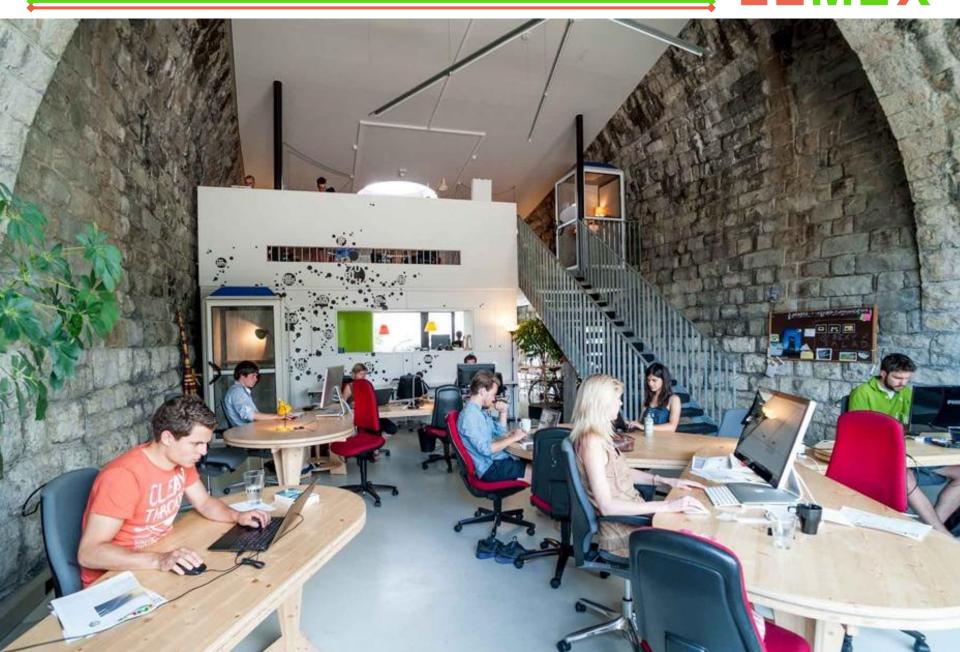
Entrepreneurship 4.0 – Cornerstones





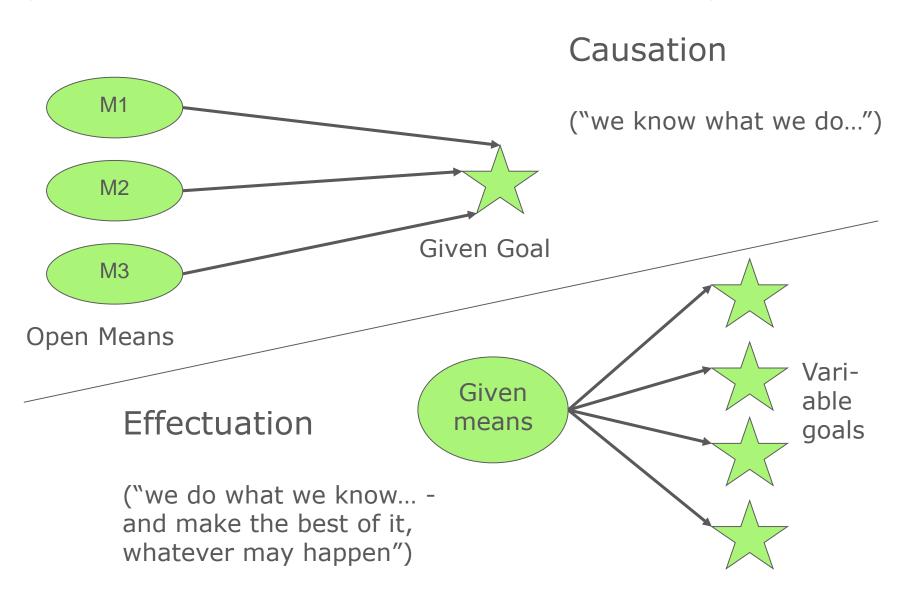
Atmosphere - where startup spirit unfolds... LEMEX





Effectuation (versus Causation)





Source: Sarasvathy (2008)

Effectuation Principles

(Sarasvathy, 2008)





Bird-in-hand {START WITH YOUR MEANS}

When expert entrepreneurs set out to build a new venture, they start with their means: who I am, what I know, and whom I know. Then, the entrepreneurs imagine possibilities that originate from their means.

contrasts with...

Pre-set goals or opportunities

Causal reasoning works inversely by assembling means after a goal is set.



Affordable Loss {FOCUS ON THE DOWNSIDE RISK} Expert entrepreneurs limit risk by understanding what they can afford to lose at each step, instead of seeking large all-ornothing opportunities. They choose goals and actions where there is upside even if the downside ends up happening.

contrasts with...

Expected return

Causal reasoning first targets a return, then works to minimize associated risk.



Lemonade {Leverage contingencies}

Expert entrepreneurs invite the surprise factor. Instead of making "what-if" scenarios to deal with worst-case scenarios, experts interpret "bad" news and surprises as potential clues to create new markets.

contrasts with...

Avoiding surprises

Causal reasoning works to minimize the probability of unexpected outcomes.



Patchwork Quilt {form partnerships}

Expert entrepreneurs build partnerships with self-selecting stakeholders. By obtaining pre-commitments from these key partners early on in the venture, experts reduce uncertainty and co-create the new market with its interested participants.

contrasts with...

Competitive analysis

Causal reasoning presumes that competitors are rivals to contend with.



Pilot-in-the-plane {CONTROL V. PREDICT}

By focusing on activities within their control, expert entrepreneurs know their actions will result in the desired outcomes. An effectual worldview is rooted in the belief that the future is neither found nor predicted, but rather made.

contrasts with...

Inevitable trends

Causal reasoning accepts that established market forces will cause the future unfold.

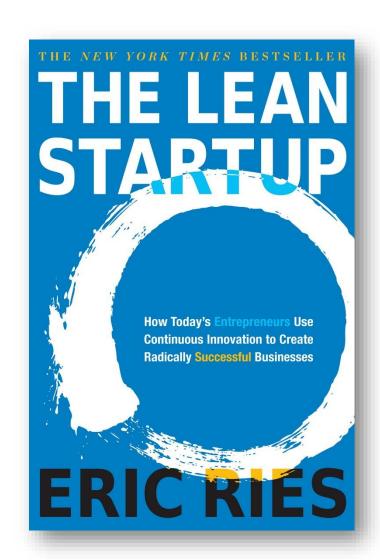


The Engineer	The Bricoleur
plans rationally and systematically	fiddling about – for something really useful
uses the typical resources	uses everything in reach (even things others call rubbish)
first design, second implementation	design and implementation go hand in hand
operates within a given frame he accepts	questions given frames, tries to break them and to go beyond

Lean Startup – what is it about?



- Starting point may be the vision and/or business idea of the founder.
- However, dialogue with customers starts immediately.
- LSU rests on investigating customer and the demand entirely – and without influencing customers at early steps.
- First target is not a prototype (too expensive and risky), but a minimal viable product (MVP) – maybe a fake or a demo version.
- Real development and maturation take place hand in hand with the validation in the market.
- Iterations, pivots and fast failure are included without them the concepts do not pass the market test.



Minimal Viable Product (MVP)



Many entrepreneurs take too much time for developing their idea.

Why?

- They long for the perfect solution.
- They want to prevent any kind of know-how drain.

What to do: reality check as soon as possible!



Problem:

Developing a prototype would have been very expensive.

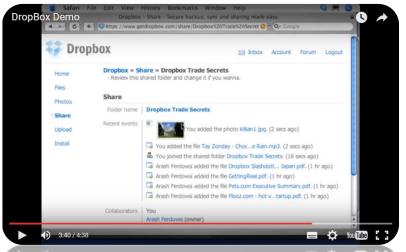
Solution:

a video of a simple and convenient way of synchronizing data – and a waiting list for interested people

Result:

75,000 subscribers over night





Leap of Faith -

Generating and Testing Core Hypotheses



Problem Hypothesis

- There is a problem from customers' point of view.
- The problem is not (sufficiently) fixed.

Solution Hypothesis

 There is a solution that fixes the problem in a better way than before.

Value Hypothesis

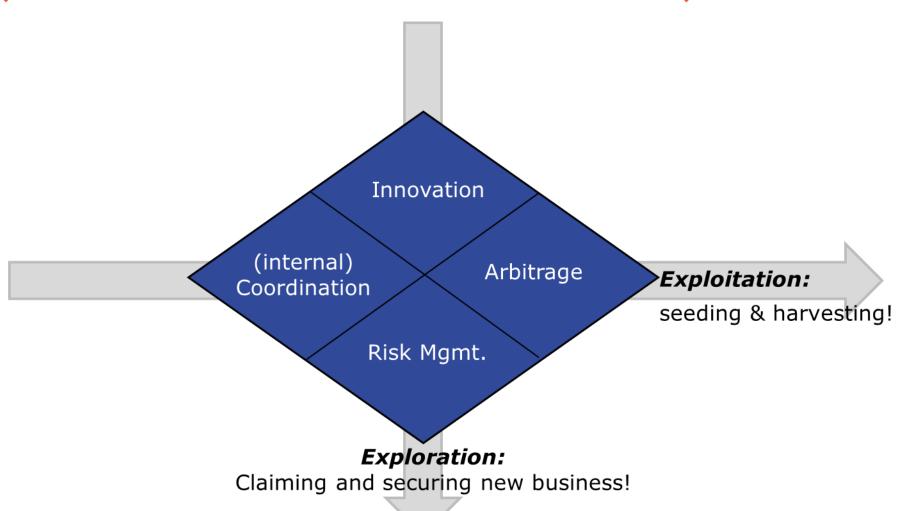
- Solution adds evident value to the customer.
- Innovators & early adopters buy and re-buy.

Growth Hypothesis

Solution is scalable within a broader market.

Entrepreneurial Ambidexterity





Source: Freiling 2008





Conclusions

Outlook



Practicalities

- Application of sound tools for developing business cases (canvases, pitch decks, etc.)
- Train the trainer strongly enabling people

Entrepreneurship Education

- Developing new formats: flipped classroom, problem-based learning, teaching projects
- Involving real-life entrepreneurs

Final words

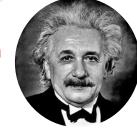


The greatest danger in times of turbulence is not the turbulence — it is to act with yesterday's logic.



Peter F. Drucker

Problems cannot be solved with the same level of consciousness that created them in the first place.



Albert Einstein

