

Society – Information – Innovation Challenges of Digital Age

*XII National Forum
of Scientific and Technical Information*



Colours & Shadows of Innovation.

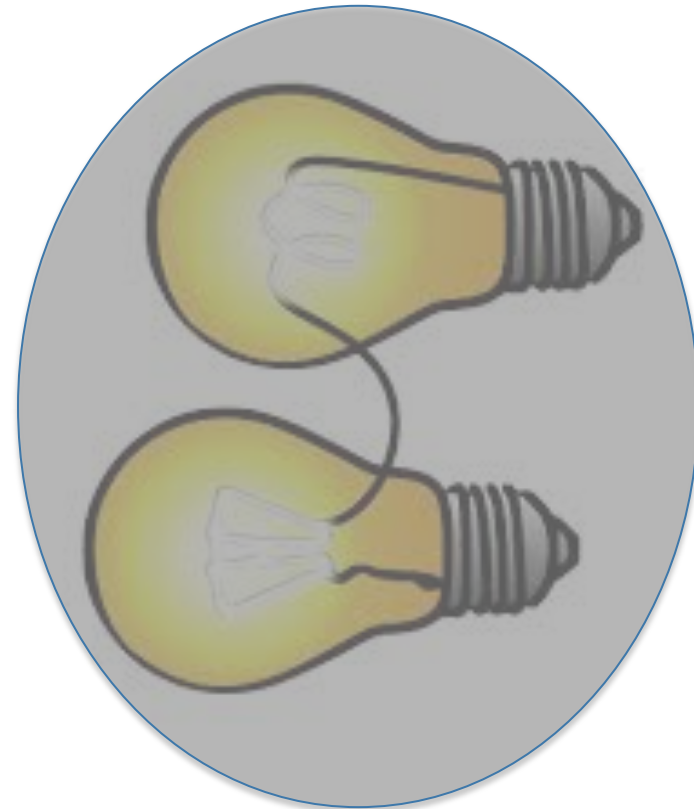
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Zakopane, 24 – 27 September 2013



Prologue.

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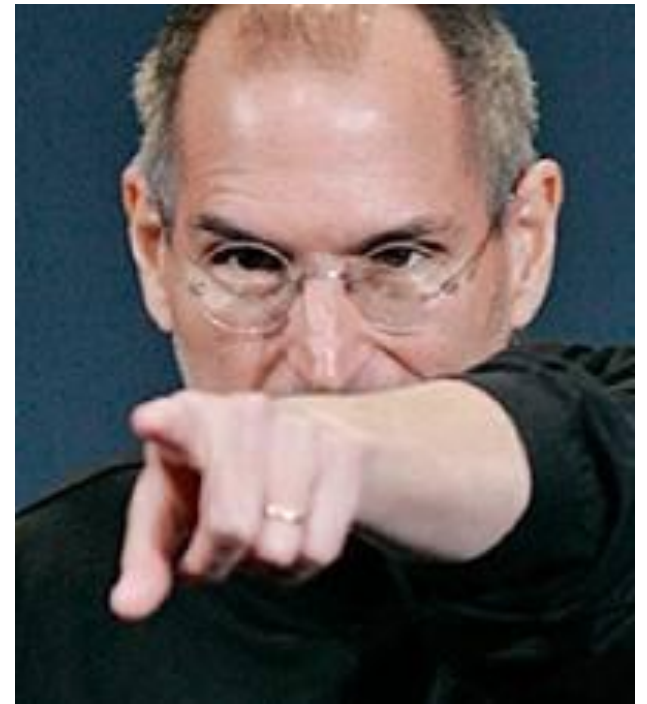
Claim



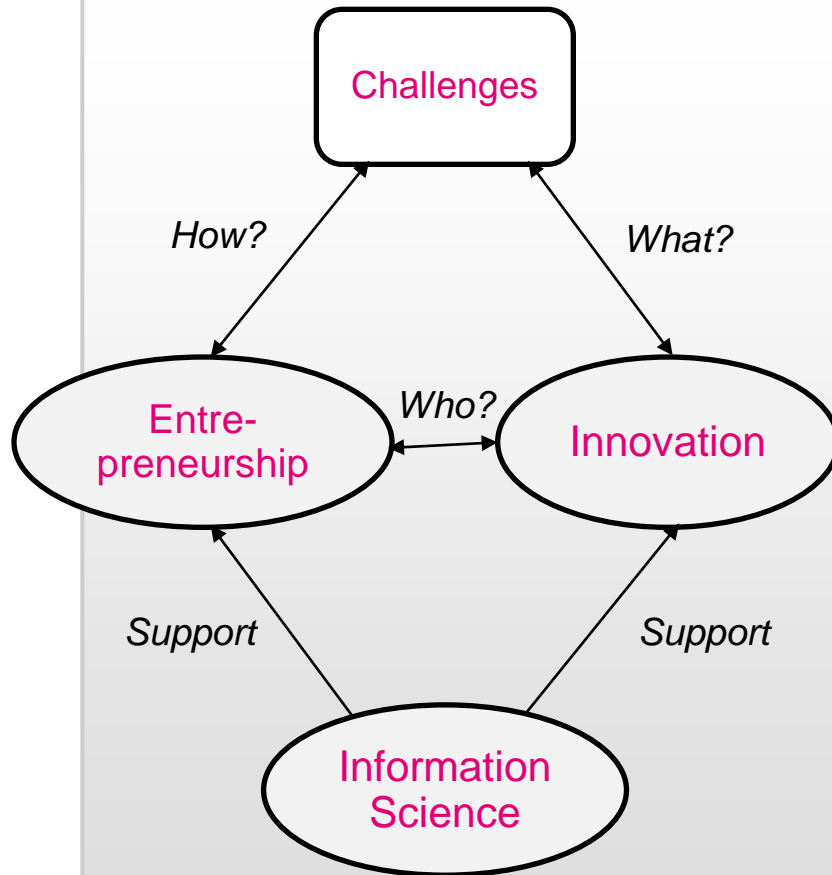
Innovation is a real game changer which has a deep impact on economy, health, education, lifestyle, entertainment, etc.

But ... it has different faces, including a dark one!

Stay informed
*“Stay hungry,
Stay foolish!”*



Agenda



- Prologue
- Our World Challenges
- To Address the Challenges
- Colours & Shadows of Innovation
 - Entrepreneurship
 - Information Science
- Epilogue

Our World Challenges.

Present World's Metaphor?



Kazuya Akimoto Art Museum
classics.kazuya-akimoto.com/contents/quarrel.html

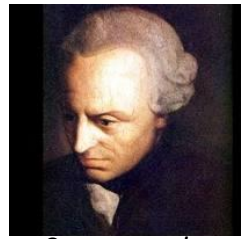
Where to Go?



„Marcher ou mourir”

What to Do?

To Lift Ourselves.



Sapere aude



René Magritte, "Le Movement Perpetuel"

Fundamental Questions

Trust	or	Control ?
Cooperation	or	Coercion?
Creativity	or	Mush-ups?
Individual	or	Crowd?
Action	or	Reaction?



- G. Leonhard

Eco-	or	Ego-centric ?
Dialog	or	Monolog ?



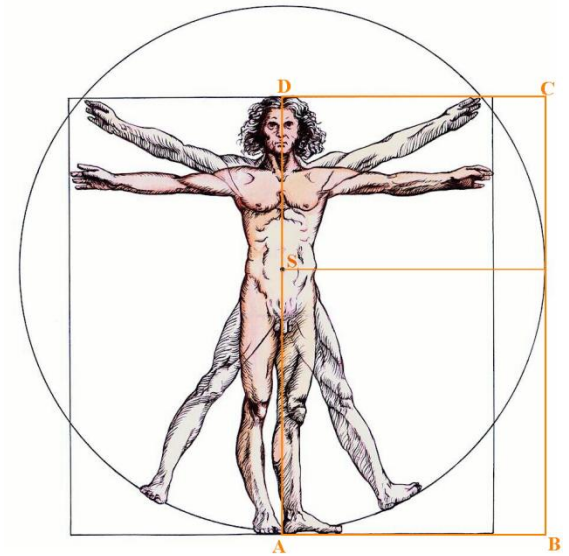
Stable instability

To Address the Challenges?

Our Answer.



Why Innovation?



Because it brings about added value or new value to our life and can provide **better off.**

Why Entrepreneurs?



Because they are/will be the major generators and carriers of innovation.

And we shall be living in the “entrepreneurial society”



Prof. D. Audretsch

Why Knowledge?



Because knowledge is a *condition sine qua non* of innovativeness and entrepreneurship.

Trends

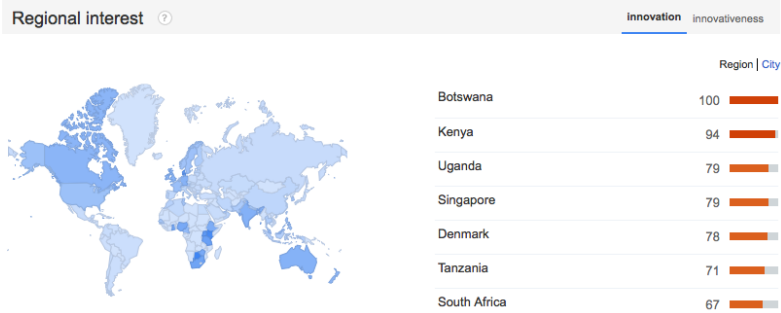
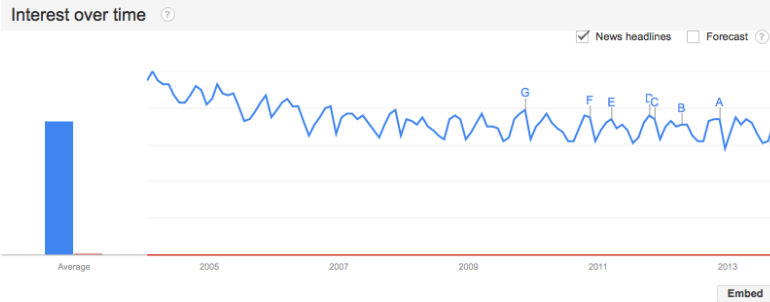
Worldwide - 2004 - present - All categories - Web Search



Hot Searches
Top Charts *New!*
Explore

innovation Search term | innovativeness Search term | + Add term

Compare
Search terms
Locations
Time ranges



Some 265,000,000 hits were received by means of Google against the query "innovation OR innovativeness"!

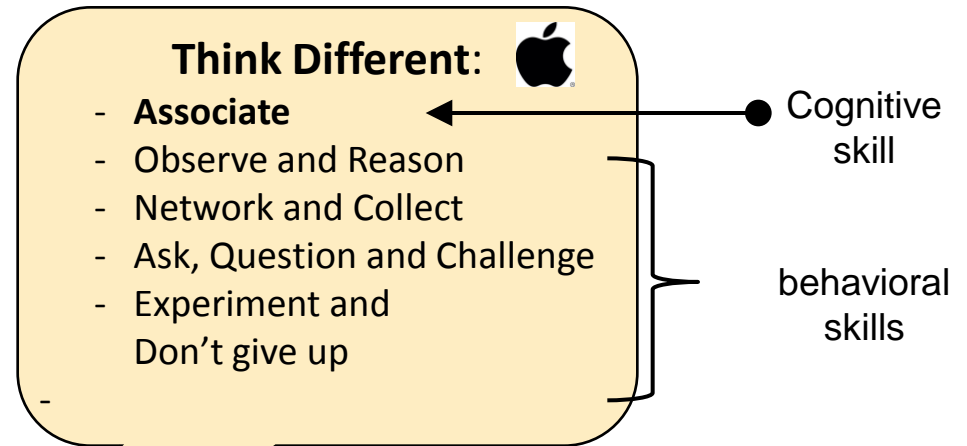
Colours & Shadows of Innovation.

Innovation – Simple Definition



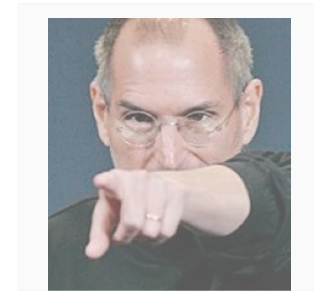
It is a **new** product or service that, however, can include already existing components.

Innovation Enablers



- Knowledge
- Creativity
- Prowess

"Courage is the first of human qualities because it is the quality which guarantees all others" W. Churchill



*Stay informed
Stay hungry
Stay foolish!*

Debunking the Myths:



1. Innovation is mainly about a **new idea**.

2. **Failure** is not an option.

"Mountaintops inspire leaders but valleys mature them" W. Churchill
"Fail often to succeed sooner", IDEO
OK to Fail, Silicon Valley mantra.

3. Innovation **cannot** be managed.

4. Innovation is basically **R&D**.

5. Innovation can be pursued in production sites only.

6. Everyone **loves** new ideas and innovators.

7. A tight budget stifles innovation.

8. Innovation requires an outside-in perspective.

9. ...

A Few Lessons Learned:



1. A new idea is some 10 % of innovation; **execution** is the rest.
2. **Innovation does not blossom in walled-gardens.**
3. Innovation is mainly not about breakthrough; it's about **'break-with'**.
4. List of **Do's and Don't's** is obvious, but simple patterns and challenges are ignored and discounted.
5. Forget socially **dysfunctional toxic creative geniuses**; they must go away.
6. Rules to manage innovation do not need to be innovative.
7. **Forget the recipes like "7 Steps to Innovation" or "Innovation for Dummies".**

Bright Sides: A non-exhaustive list:



1. Innovation adds value to the existing settings and makings and thereby it can create **wealth** and provide **better off**.
2. Innovation can provide a **comparative** and **competitive advantage** in business, and improve non-business processes such as **governance**, **citizens' security**, and **social inclusion**.
3. Innovation increases **performance and productivity** and improves the use of raw materials and available resources.
4. Innovation can lead to the **creation of new professions and/or jobs!**
5. Innovation and innovativeness are the ways and means for capitalism to redefine itself towards what is called **cognitive capitalism** based on knowledge, and to alleviate present growing economic, social and cultural problems.

Dark Sides: A non-exhaustive list:



1. Innovation causes or even **creates obsolescence of products and services** (as noted already by Joseph Schumpeter) that are still useful but are moved out under the catchword of novelty. This leads to exhaustive exploitation of natural resources and labor.
2. It may happen that innovation **solves one problem but creates another** problem(s), even more severe.
Example: nuclear plants produce cheap energy, but disposal of nuclear waste and security are real problems.
3. We **cannot predict and control all side effects** and unintended use of innovative products.
Example: **Financial derivative instruments** (present crisis!).
Alfred Nobel's dynamite was not meant a weapon and an instrument of destruction – he thought of peaceful purposes.
4. Innovation can **hinder or reduce jobs!**
5. Innovation has a cost. **Who pays for innovation?** Customer.
6. Striving for innovation **disturbs routine work.**

VIN (the Future).

Technological and business innovations are not enough for they cannot resolve social problems,

therefore,

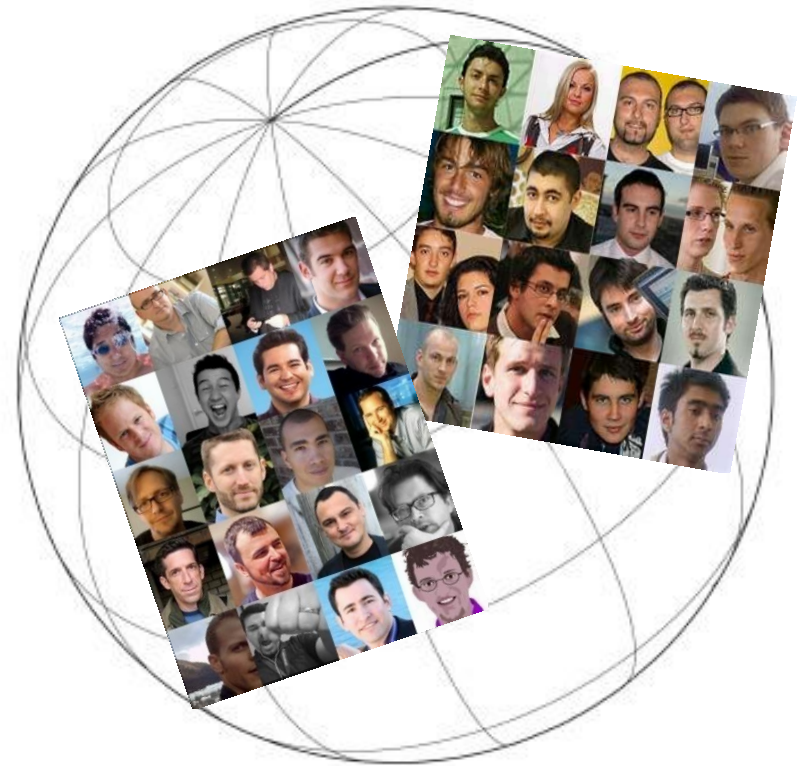
we badly need social innovations, too.

Both have to go hand-in-hand



Entrepreneurship.

Claim.



Entrepreneurship is a **missing link** between the idea / **innovation** and commercialization / **market**.

Entrepreneur.



1883 - 1950

“
...

- can **discover** economic opportunities and **information**
- operates well when markets are not clearly defined
- can translate these into new markets
- builds new markets and expands old markets
- connects different markets
- is an ‘input completer’ ”.

- Joseph A. Schumpeter

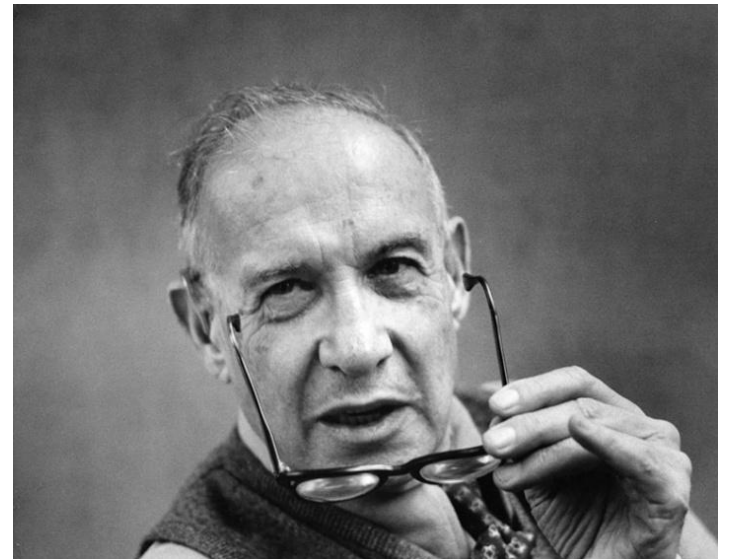
*“The Theory of Economic Development:
An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle”, 1936*

Relationship.

“Innovation is the specific instrument of entrepreneurship. The act that endows resources with a new capacity to create wealth.”

- Peter Drucker

“Innovation and Entrepreneurship”, 1985



New Style.



Jeff Bezos



Mark Zuckerberg



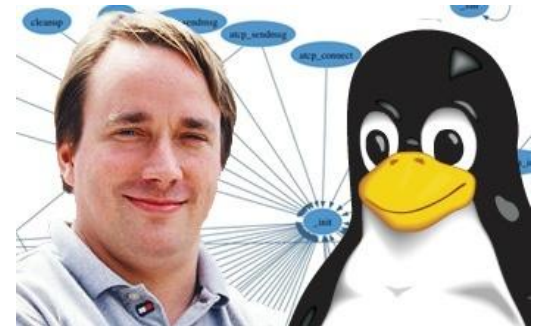
Larry Page & Sergey Brin



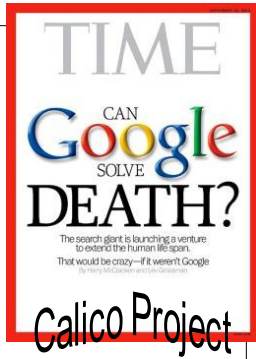
Steve Jobs
"Stay hungry, stay foolish"



Jimmy Wales



Linus Torvalds



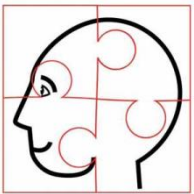
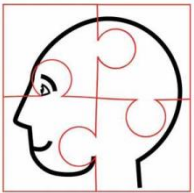
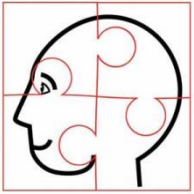
Entrepreneur of a New Type.

- innovative
- internet savvy
- highly information literate
- knowledge-intensive
- global reach
- self-reliant
- cooperative
- prosumer
- risk taking, challenge driven
- ethical
- aware of environmental issues
- ...



Michelangelo's David

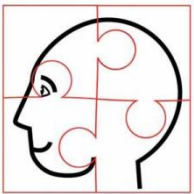
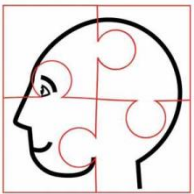
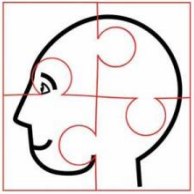
Information Science.



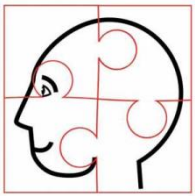
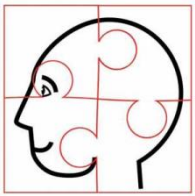
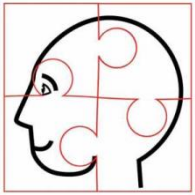
Information Science is about developing the understanding of the notions of information and knowledge and on how to collect, classify, manipulate, store, retrieve and disseminate any type of information by means of any medium.



Challenge.



How to support
innovativeness and
innovators/entrepreneurs?



Research & Application Topics

- New methods of knowledge representation
- Deep data analysis (**big data**)
- Semantic and context-based acquisition and filtering, including multimedia objects
- Knowledge sharing (Open Access)
- Natural language interface (understanding)
- e-literacy (i.e. digital literacy, media literacy, information literacy)
- ...



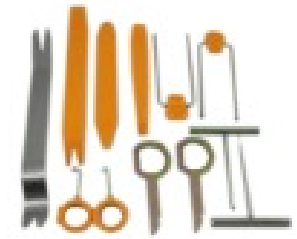
XII Forum – Agora of minds
and debates on how
information science could
contribute to innovativeness!



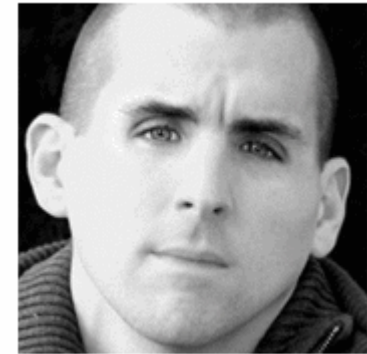
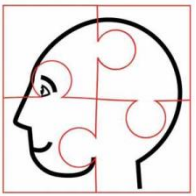
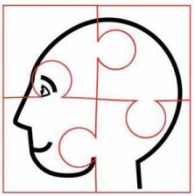
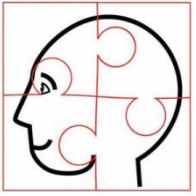
Epilogue.

“Mishmash” Questions 😊

(micro, mezzo, macro levels)

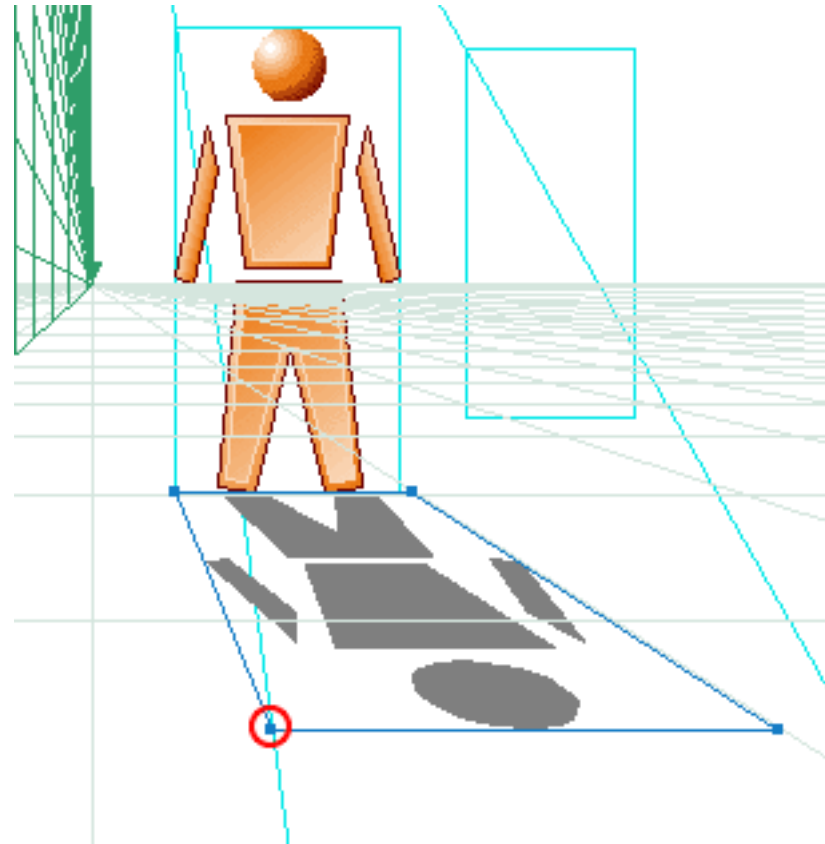


1. Theory of innovation: **Necessary?, Feasible?**
2. How to measure innovation?
 - Measuring Innovation: A New Perspective, OECD, www.oecd.org/innovation/strategy/measuring (macro level)
 - The Innovator's DNA. Tests for individuals and companies at <http://innovatorsdna.com/>
3. IPR: Booster? Blocker?
4. Globalization and innovation? (is innovativeness subject to globalization?)
5. Role of governments? (see for instance OECD Innovation Strategy)
6. Can innovativeness be taught / learned? (I hope to hear something from you on it 😊)
7. Rewards and incentives (at personal level, country level)?
8. ...



*“Innovation comes at a price: it might be money,
time, sanity, friends, or marriages”*

“The Myths of Innovation”, S. Berkun



Thank you for listening!