Maynooth University
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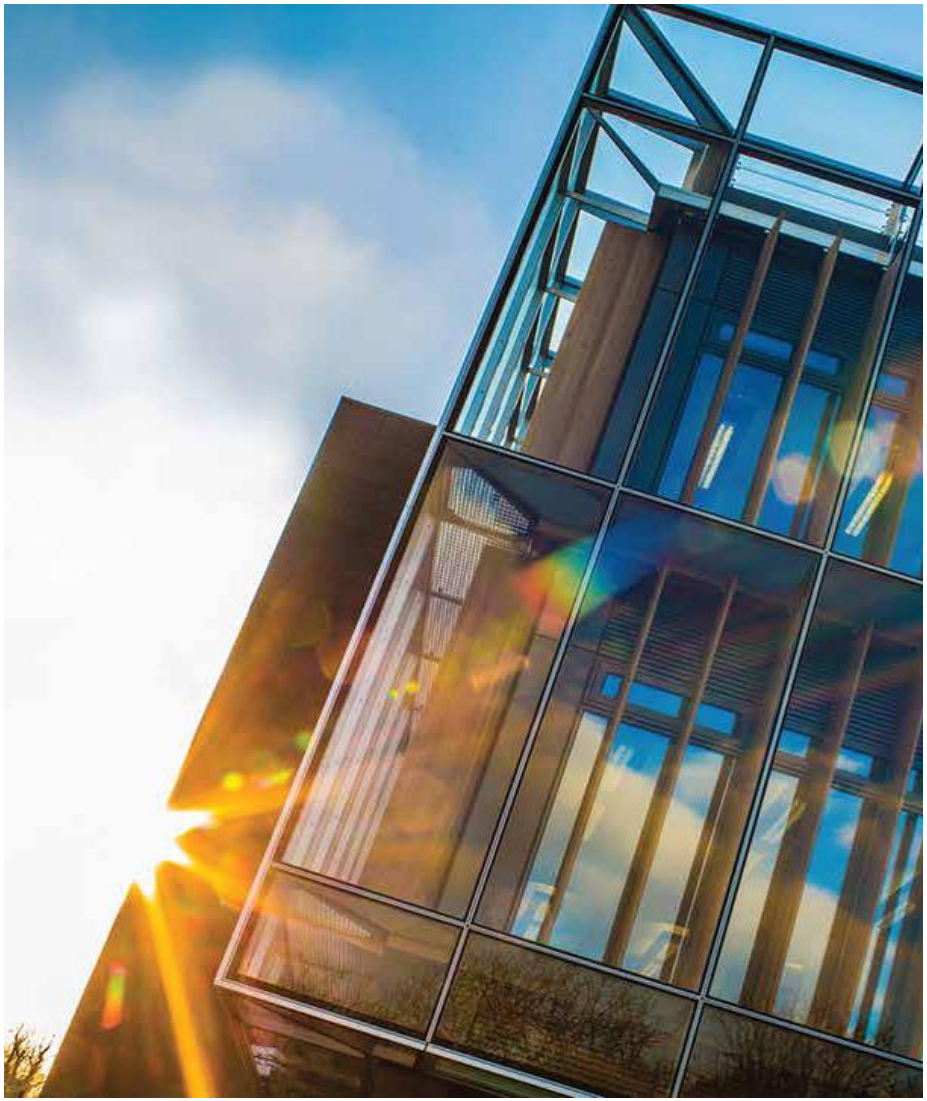
School of Business

THE TREND TOWARD OPEN INNOVATION

Professor Anne Huff

Tor Vergata 17 May 2016



INTRODUCTION TO PART II

STANDARD ('LOGICAL') THINKING ABOUT INNOVATION IS OFTEN PROBLEMATIC

EXPANDING THE SOLUTION SPACE WITH 'OPEN INNOVATION' IS GETTING EASIER

WHY Open Innovation?

- OI is a promising way to way to get around blindness created by attention on the day to day

- https://www.youtube.com/watch?v=vJG698U2Mvo

- http://www.theinvisiblegorilla.com/videos.html

WHY? Look at 5 macro-factors driving need for Open Innovation *

1. **Increasing interaction** (individual, groups, organisations) around the world → new and more varied demands for products, services, experiences
2. **Technological changes** ↑ connections among producers ↓ costs of production
3. **Global competition** → demands that exceed resources
4. **Economic uncertainty** ↑ desire to share cost
5. **International labour pool**: well-trained, low-cost

***Introduction: Leading Open Innovation**

Please join the conversation

- Customer
- McDonalds - Aiello
- Starbucks - Mazzarotto
- BMW - Abolhassani
- OLYMPIQUE MARSEILLE - Palmieri
- Lego - Carrese

Notes on OI with Customers

Benefits?

Sustainable mkt growth (competitive advantage, only one with this idea)

Get ideas without spending too much money

Attract customers

Customer feel they have active part, in a relationship

Be more effective, because produce what customers want

Indirect feedback, can reveal problems

Relationship with employers too

More security for future investment

MARKETING campaign

Notes on OI with Customers

Concerns? Possible negatives?

Is the responding person representative of larger group?

Could cost too much money, etc.

Copyright problems?

Might get away from core competence

Hard to handle all ideas

Since come from customers, may not be realistic

Employees in R&D might not accept {AH: see NOT INVENTED HERE}

Have to evaluate, before responding

Companies have a process, whole process has to change

Easy for competitors to see idea

Need platform, need to be able to implement

TAKES TIME (100s of ideas)

Discourage customers, sent in a good idea, not satisfied with response

Notes on OI with Customers

Advice?

Have to build internal interest, increase possibility of implementing

Limit choices offered to customers, so can process

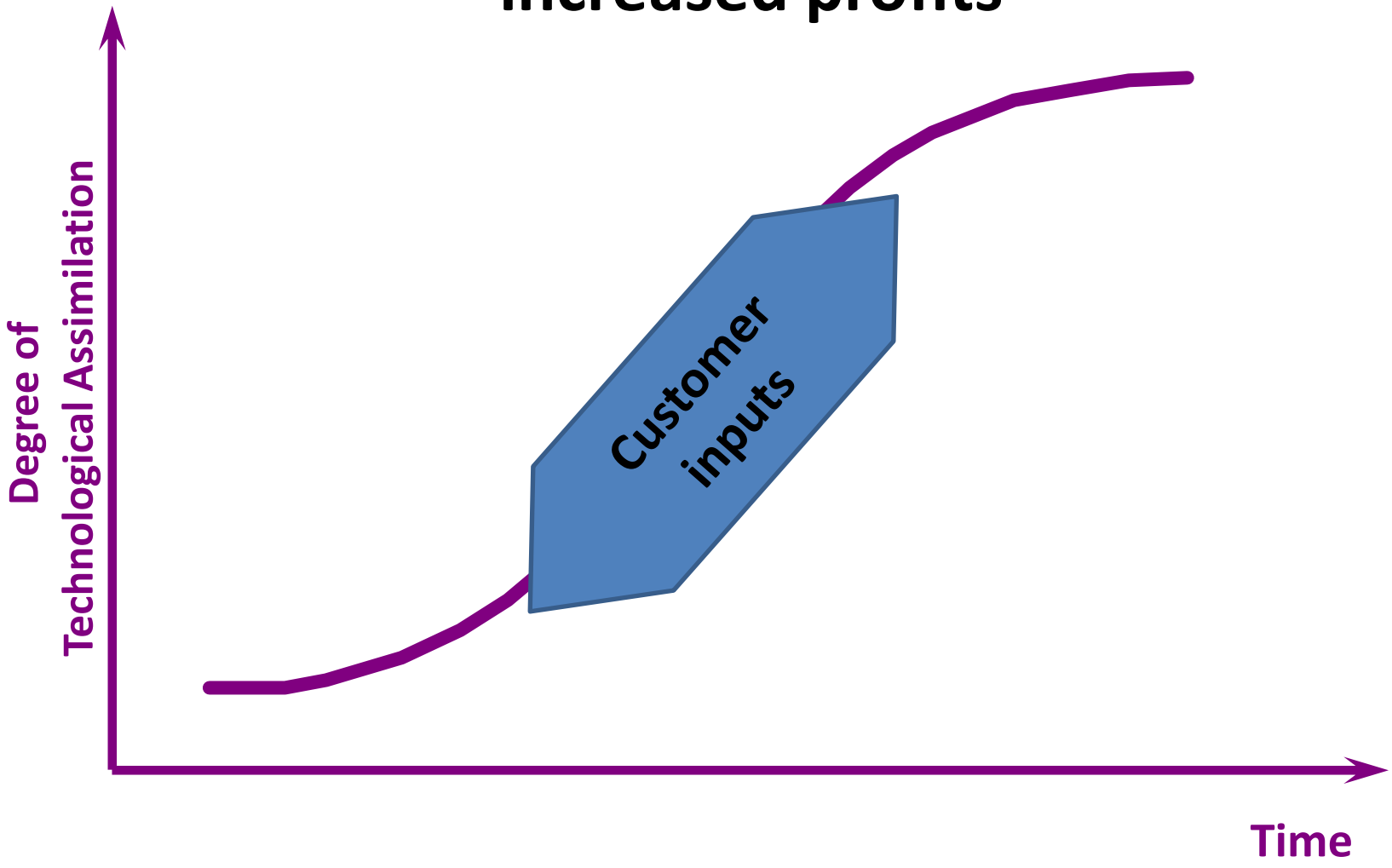
Put some winning ideas into things offered

Create # etc. to simplify customer input, make it easier to input

Make OI more permanent

- Yearly event?
- Or, re-launch what worked in past

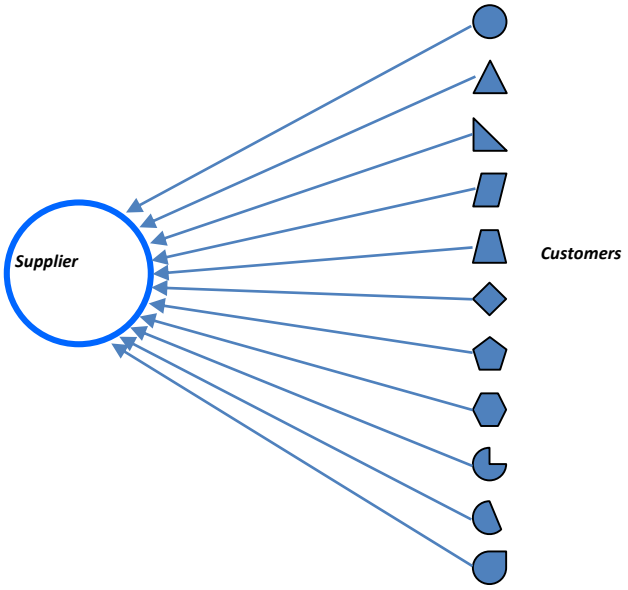
Many companies connect with customers to accellerate the classic S-curve that may bring increased profits



Von Hippel & others: dramatic change in Product Development

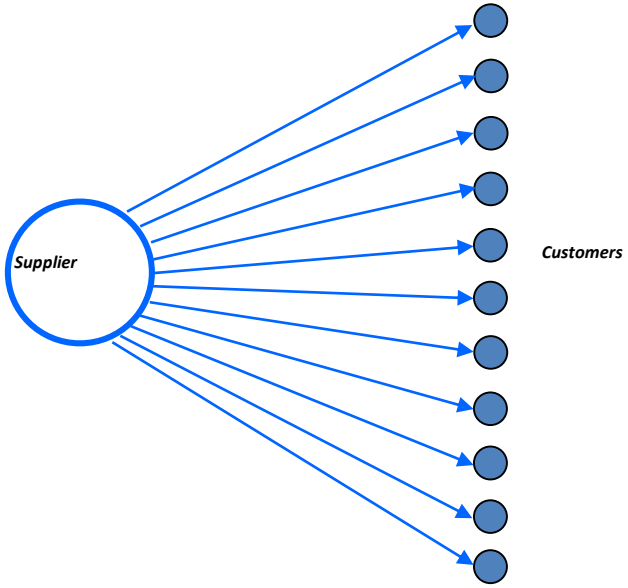
NEW MODEL

SOLUTION INFORMATION



TRADITIONAL MODEL

SOLUTION INFORMATION



DISCUSSION

WILL INDIVIDUAL USERS & CUSTOMERS BE AS INFLUENCIAL IN THE NEXT DECADE?

Maybe not?

- like politics, people may be more apathetic
- if firms are better at fit, less need for OI

market could change, new trends by market leaders products could be more adaptable

People can create to satisfy more of their own needs

Digital Revolution creates so much data consumer choices are already known

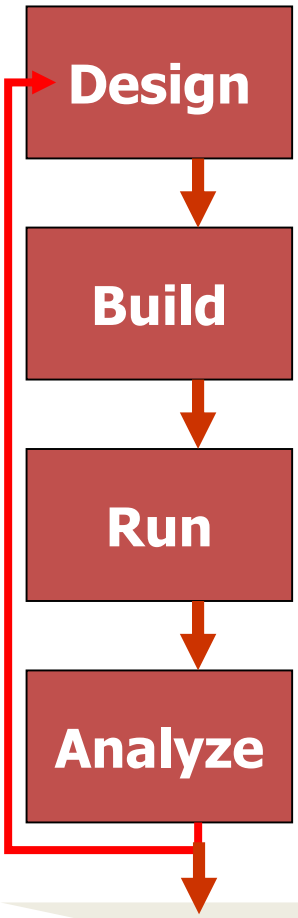
Yes, OI with customers can be cheaper

Please join the conversation

- Internal open innovation (ask employees)
- AT&T – Sparagna
- Company to Company
- Iamele Open Innovation - Space10, IKEA

Innovation is traditionally seen as problem solving based upon "directed trial-and-error" (Allen 1966; Marples 1961; Thomke 2003; von Hippel & Tyre 1995)

Initial Specification: Task / problem definition (need information)



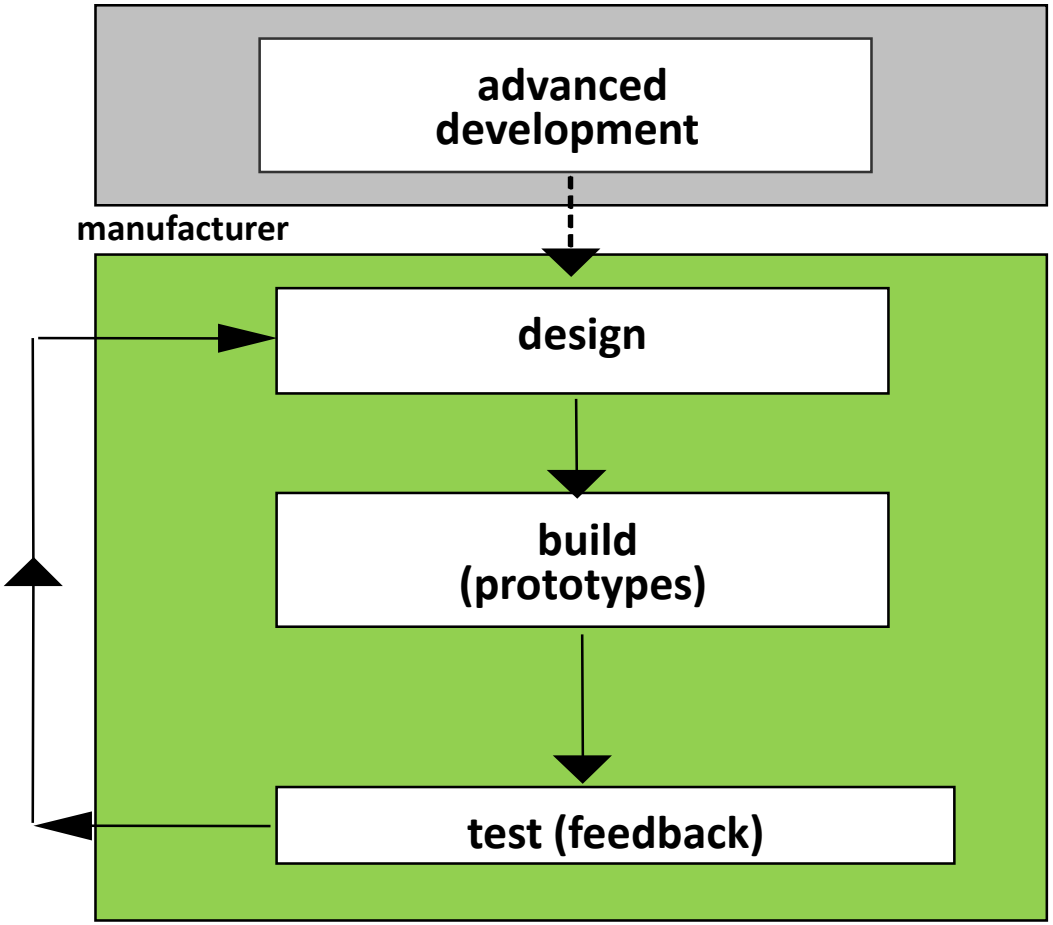
Iterations ("trial and error")

Done

- Development of a first solution idea which the developer expects to be suitable
  - **I will design a rocket**
- Development of a thought experiment, simulation, or prototype
  - **I will build it**
- Test of the design under real or simulated conditions
  - **I will flight test it**
- Analysis of results versus initial idea; evaluation of performance gap, search for errors
  - **It crashed: I will analyze what went wrong so I can redesign**

NEW MODEL

Open to others



Customers + suppliers, competitors (coopetition) + others

Modified from figure by : Thomke / von Hippel 2002

Another approach: Jugaad

- From very basic

  https://www.youtube.com/watch?v=SQ2yotsLk_M

- To very sophisticated (but still much cheaper)

  http://newsroom.gehealthcare.com/ecgs-india-reverse-innovation/

Jugaad

- From India

"make do with what you have & never give up"

- **First break all the rules: The charms of frugal innovation,** *The Economist*, April 15th 2010 http://www.economist.com/node/15879359?story_id=15879359

1. contract almost everything
2. use existing technology in new ways
3. mass production in new areas

See also: http://jugaadinnovation.com/

Please join the conversation

- Future
  - Spotify - Franceschina
  - Fiat mio - Forti
  - Open music – De Romanis
  - Graphene - Lucantonio
  - Why does Apple not do Open Innovation – Murgo

Agenda 18 May

- **Process of Innovation / design thinking**

- **Kolb's learning model**
  - **Writing**
    - **Make sure you are using sources responsibly**
    - **Memo format**
  - **Evaluate memos**

- **LISTEN/EMPATHIZE – key concept to remember**

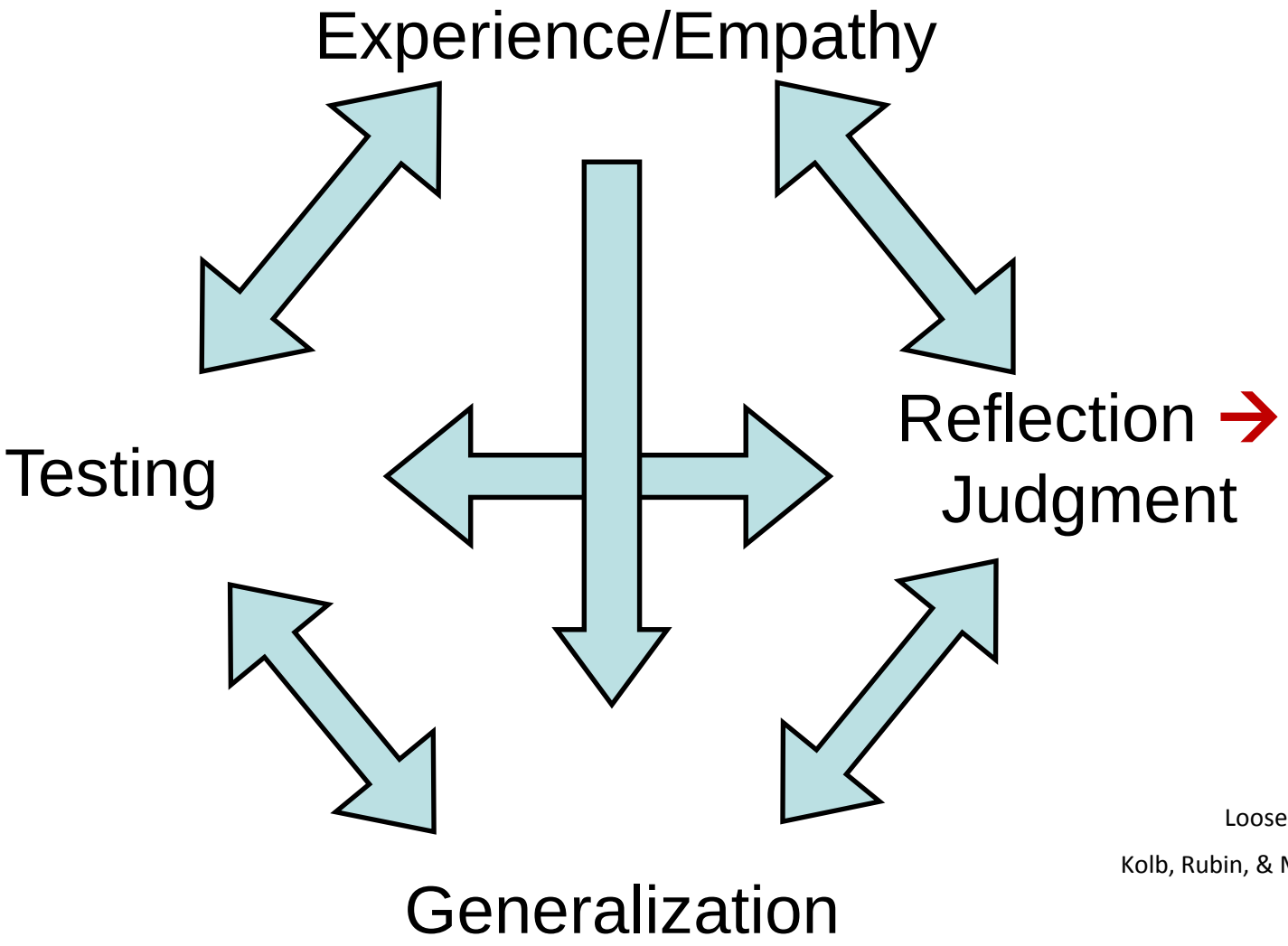
CRASH COURSE IN 'DESIGN THINKING'

- **Stanford d-school**
  - http://dschool.stanford.edu/dgift/
  - https://www.youtube.com/watch?v=-FzFk3E5nxM

FOR MORE USEFUL IDEAS SEE Bootleg bootcamp

http://dschool.stanford.edu/use-our-methods/the-bootcamp-bootleg/

Experiential Learning as Theorizing



Loosely Adapted from

Kolb, Rubin, & McIntyre, 1979.)

KEY IDEAS: Learning to Innovate

1. Avoid assuming the past (often unconscious)
   even though this is often necessary

2. Do not leap to judgement (also based on the past)

3. Test, test, test (the future is unfolding)

Excellent learning in this course: Properly crediting sources used

From April session:

x/77 almost complete uncredited overlap with online sources

y/77 significant overlap with unaccredited online sources

To May session:

2/30 (not present when requirement discussed?

Sources for understanding Plagiarism & Adequate Citation

- **Plagiarism: How to avoid it**
  - https://www.youtube.com/watch?v=2q0NlWcTq1Y
- **Plagiarism and referencing** (Orna Farrell, DBS)
  - http://www.slideshare.net/ornaf/plagiarism-referencing

What is acceptable assessment material?

- Turnitin marks overlap with other resources found on the web, including NUIM material, and summarises with a 'similarity' score. Higher scores are often problematic
- NOT A PROBLEM
  - A resubmission that overlaps with previous versions you submitted
  - Passages from your text that are properly cited, but somehow picked up as problematic (sometimes a mistake made by turnitin)
- NOT IN GENERAL ACCEPTED
  - Overlap with texts you have submitted for other assignments
  - Overlap with material from other students
- WILL DEFINITELY NOT BE ACCEPTED
  - Indication that your text was taken from Wikipedia or some other source without use of quotation marks. A general citation is not sufficient; you are in even more trouble if source not acknowledged
- ALSO NOT ACCEPTED, but not marked by turnitin
  - Non referenced factual material you could not know from your own experience (https://www.youtube.com/watch?v=2q0NlWcTq1Y)
  - Ideas from others that are not formally published

University Assignments

- Sources for information used in University must be properly cited – this includes directly copied material and paraphrased factual material that is not general knowledge
- To cite properly, make sure that you use double quotes, “like this”, not single quotes ‘like this’
- Also do not just change a few words and then put a reference somewhere

TEST UNDERSTANDING OF INNOVATION & MEMO FORMAT

- **Exercise: provide supportive feedback on**

  a) open innovation information

  b) memo format

  – **Stay in assigned group *(difference → more varied experience, reflection, generalization)***

  – **Independently read one text, then discuss**

  (difference → more varied experience, reflection, generalization)

  – **Summarize advice**

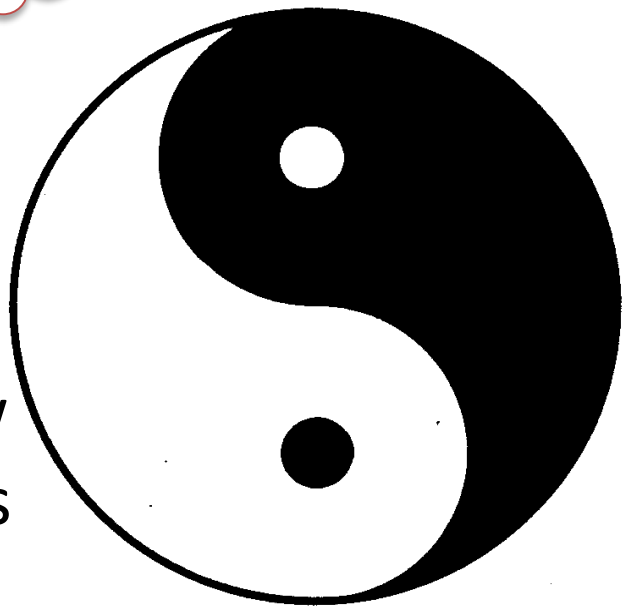
CONCLUSION

Innovation

- Innovations ⇔society
- YOU are inventive/creative, can & should be more. It is easier than it has been in the past
- You will be expected to be more innovative
  - Important skill in tight, global labor market
  - Many jobs can be & are automated or done by robots
- To be innovative, build diverse networks, practice
- Last and most important empathetically LISTEN TO ‘CUSTOMERS” + other stakeholders , then respond

Key tension for innovation

A way to transcend established formulas & rigidities as new actors and ideas are recognised & developed



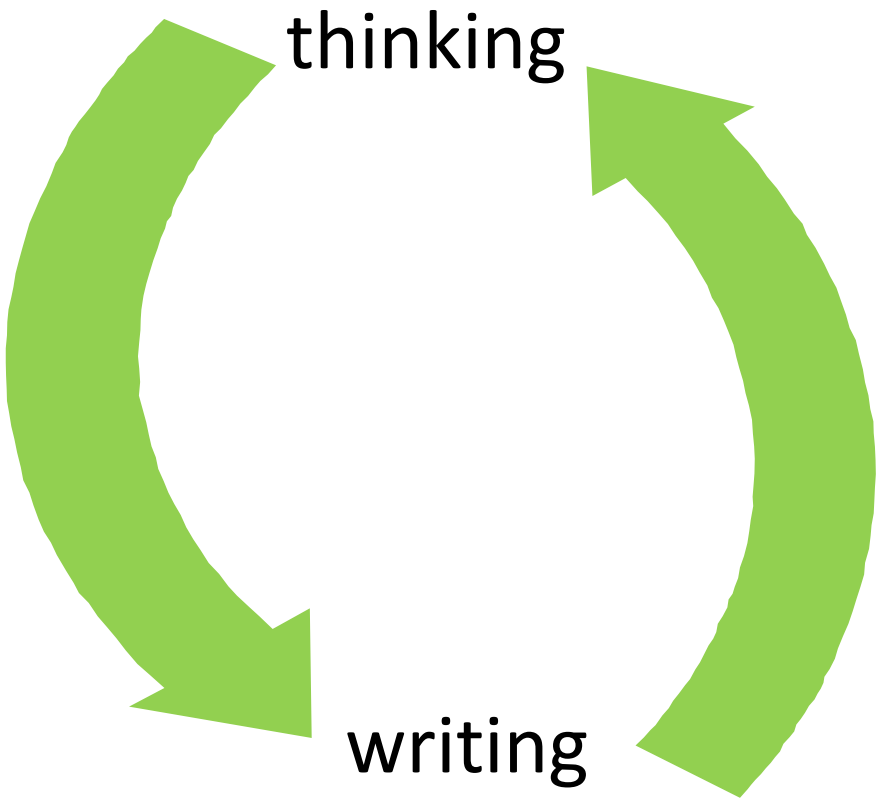
Barriers : direct resistance, different values, misunderstanding, distraction, not noticing...

Inertia is very, very, strong, often invisible

THINKING AND WRITING

"How can I know what I think until I see what I say"

Karl Weick



"How can I improve what I write until I clarify my thinking?"

Writing Advice

- Use your knowledge and knowledge of others, but report **your judgment**
  - **Show (cite) sources**
- speak in **your 'voice'** (as appropriate)
- [April] Make **content asked for** easy to find
- [May] Use **requested format** [you may not know all reasons why the format was requested]

More effective communication

- your judgment
- cite sources
- your ‘voice’
- content asked for
- requested format

TOP TAKEAWAY: LISTEN!

- ✷**Ernesto Sirolli: Want to help someone? Shut up and listen!**
- **https://www.youtube.com/watch?v=chXsLtHqfdM**

Another exercise Eric von Hipple

Edx Course on User Innovation – a path to Entrepreneurship (2015)

- "This 5-session Edx course is quick and entertaining (I think / hope). It can be viewed by students at any time – it has no fixed session start dates. It is intended to assist with the initial idea generation phase of entrepreneurship courses. It explains how one can search one's own experience for personal "user needs," and also explains how to think about whether any of these personal needs might be the basis for a non-profit or profit-seeking venture." Eric von Hippel
  - http://evhippel.mit.edu/teaching/

Future of Innovation? ROBOTS

From Japan – major country working on robots by necessity (aging population, restricted immigration)

https://www.youtube.com/watch?v=mpzIQt6l4xY

https://www.youtube.com/watch?v=LFm5avbuWWU

From MIT an excellent place to watch for innovation

- Self folding robots
  - https://www.youtube.com/watch?v=9M1zNIVGrjM
  - https://www.youtube.com/watch?v=ZVYz7g-qLjs