

DATA FOR PEACE & JUSTICE

Minor Innovation, Responsible Innovation (2016)

Thomas Baar & Sjoerd Louwaars (Centre for Innovation, Leiden University)



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WHAT IS CHANGING?



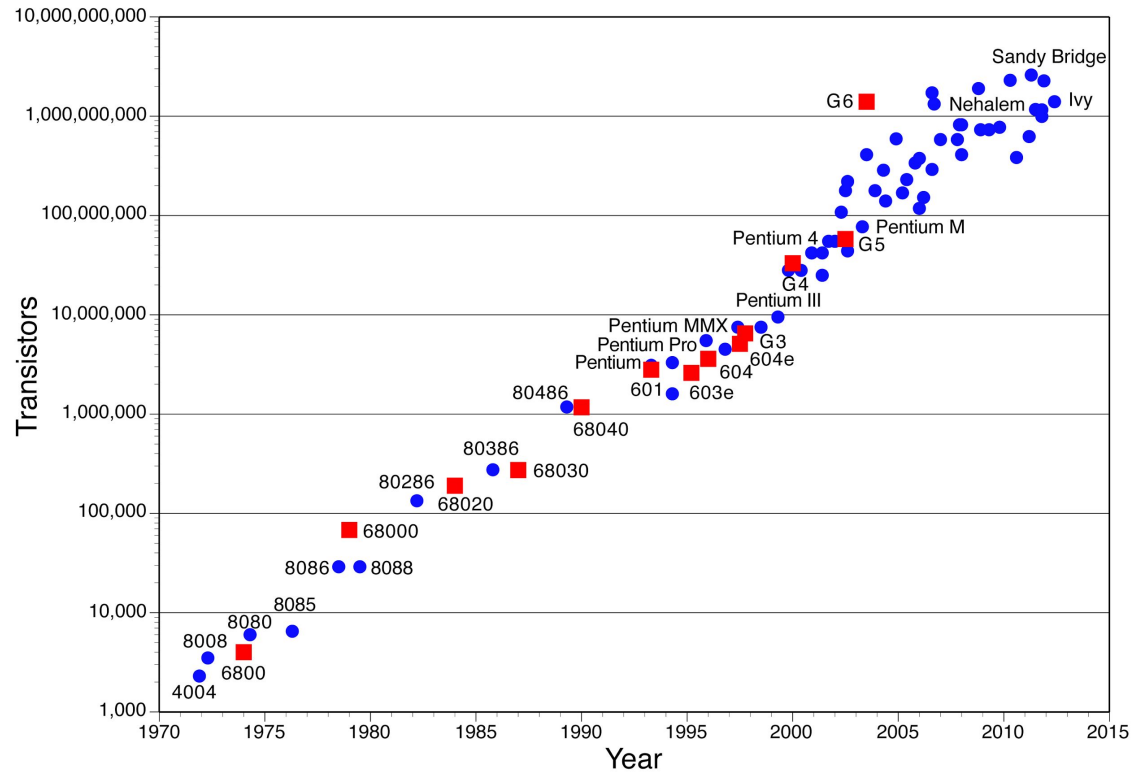
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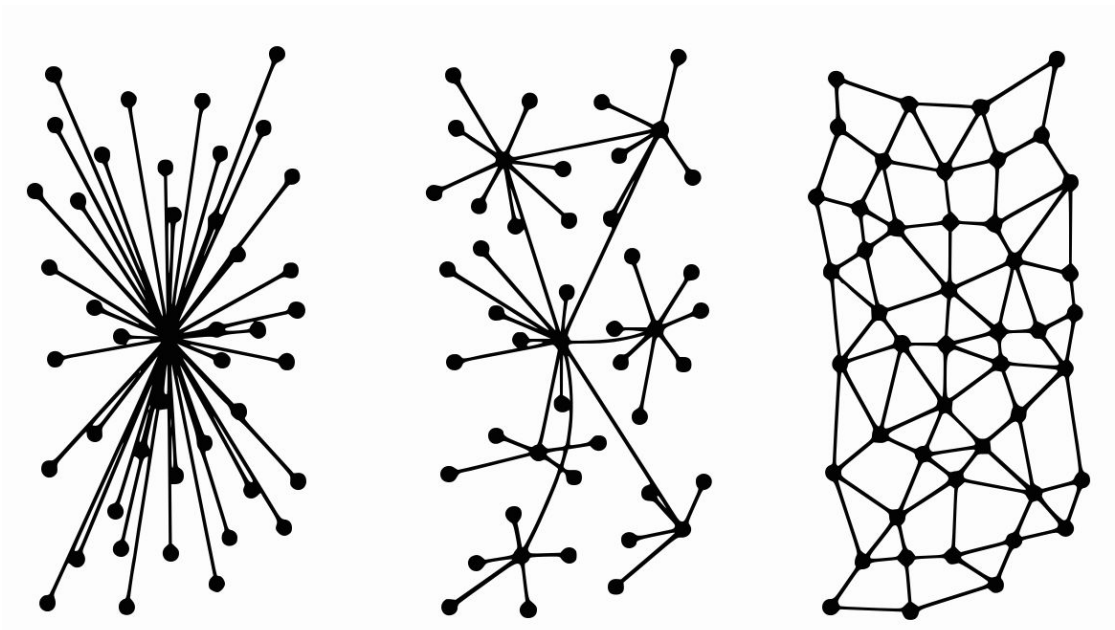
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DRIVERS OF CHANGE

MOORE



NETWORK

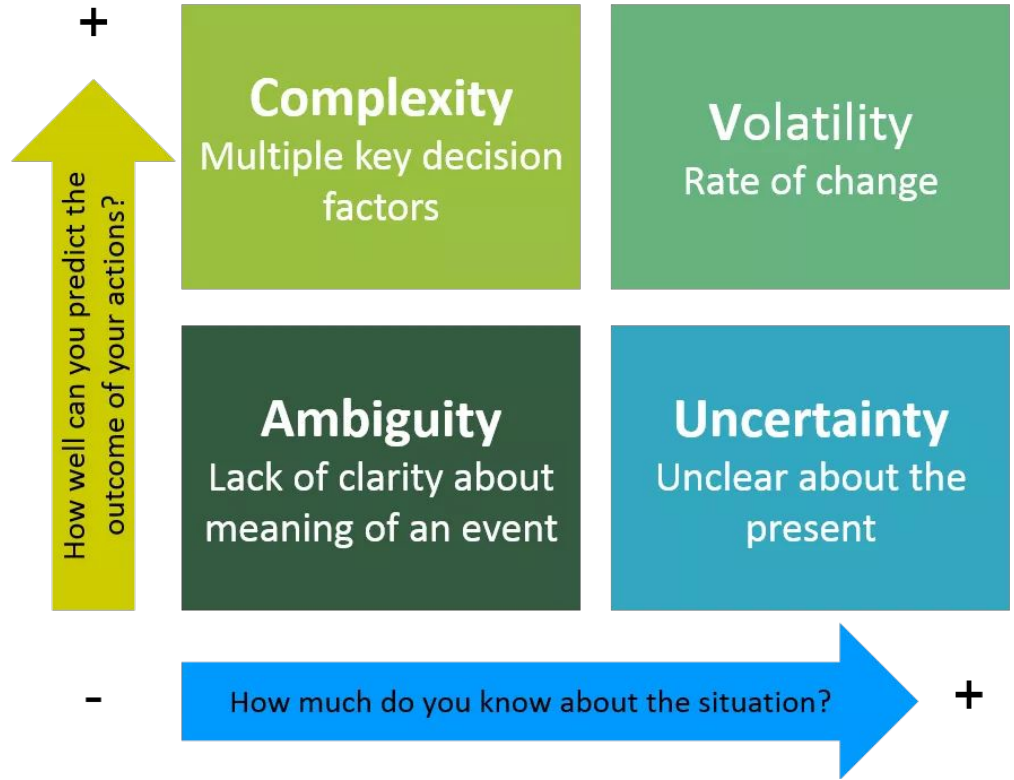


ORGANISATION



VUCA

what does it mean ...



VUCA

how to handle it ...

VOLATILITY
UNCERTAINTY
COMPLEXITY
AMBIGUITY

→ **VISION**
→ **UNDERSTANDING**
→ **CLARITY**
→ **AGILITY**



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SIMPLE, COMPLICATED AND COMPLEX



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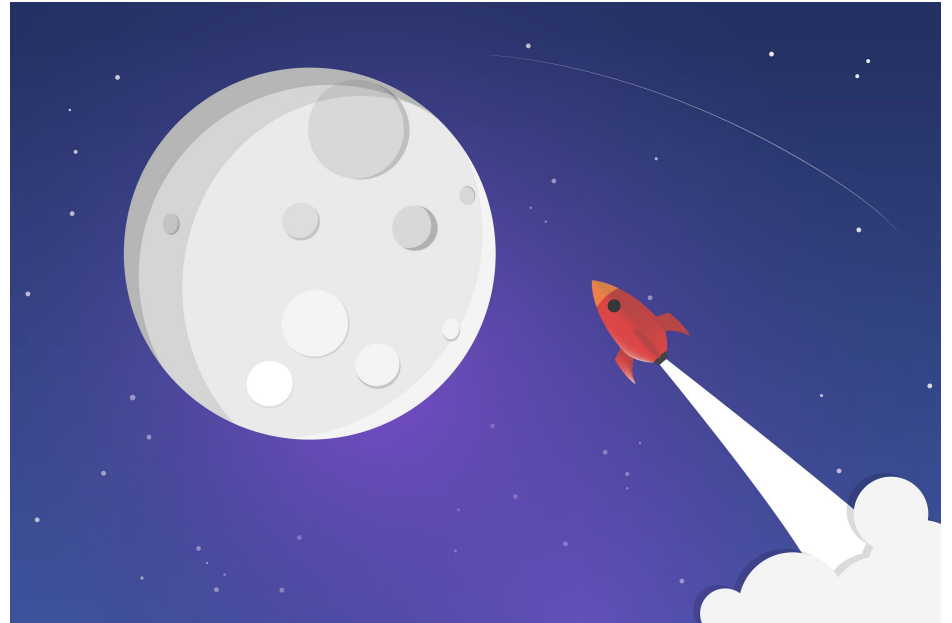
TOAST

a simple challenge



MOON LANDING

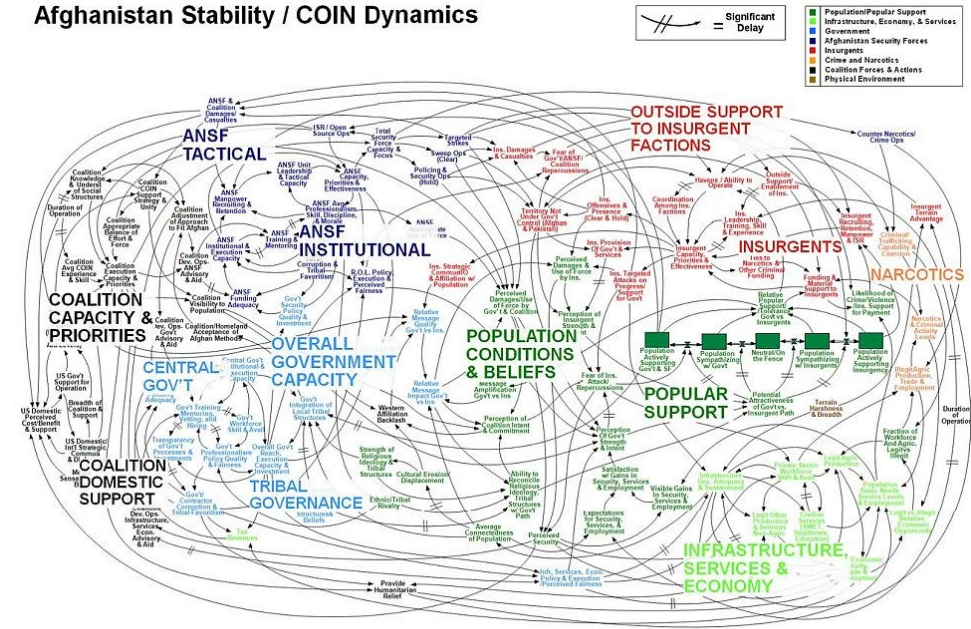
a complicated challenge



AFGHAN COIN

a complex challenge

Afghanistan Stability / COIN Dynamics



WORKING DRAFT - V3

SIMPLE

easy to solve

COMPLEX

resists solving

SUMMARY *A clear problem with a clear solution.*

The problem and solution are not clear but can be understood within time.

PROPERTIES *Predictable.
Straightforward.
Obvious.
Knowable processes.*

*Many elements, although elements themselves are familiar.
Hidden root-causes.
Non-linear.
Inter-operating parts affect each other.*



CONFRONTING COMPLEX CHALLENGES



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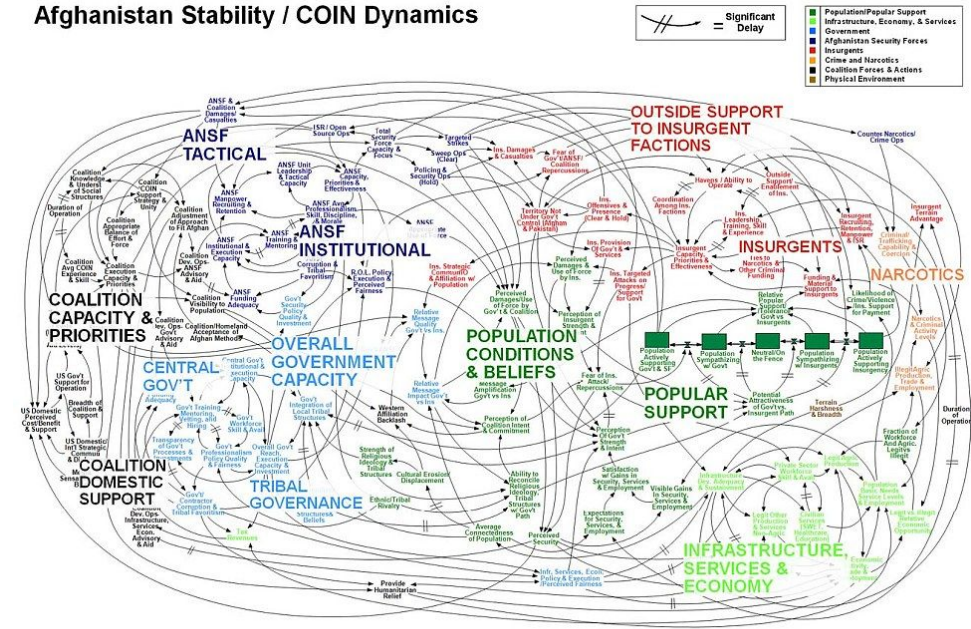


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AFGHAN COIN

a complex challenge

Afghanistan Stability / COIN Dynamics



WORKING DRAFT - V3



TED



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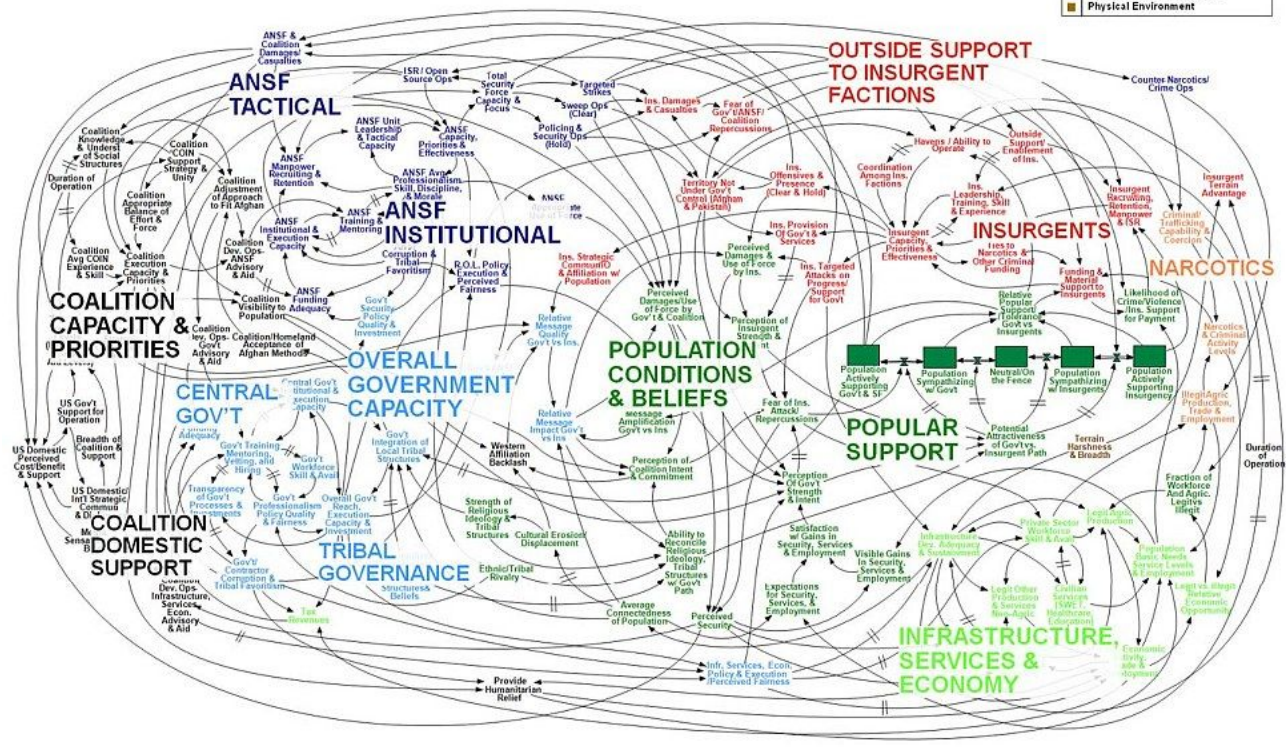
20

OXFORD ENGLAND

Afghanistan Stability / COIN Dynamics

= Significant Delay

- Population/Popular Support
- Infrastructure, Economy, & Services
- Government
- Afghanistan Security Forces
- Insurgents
- Crime and Narcotics
- Coalition Forces & Actions
- Physical Environment



WORKING DRAFT - V3

WHEN CHALLENGES BECOME WICKED

(Rittel & Webber, 1973)

1. *There is no definitive formulation of a wicked problem.*
2. *Wicked problems have no **stopping rule**.*
3. *Solutions to wicked problems are not **true-or-false**, but good or bad.*
4. *There is no immediate and no ultimate test of a solution to a wicked problem.*
5. *Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by **trial and error**, every attempt counts significantly.*
6. *Wicked problems do not have an enumerable set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated .*
7. *Every wicked problem is essentially unique.*
8. *Every wicked problem can be considered to be a symptom of another problem.*
9. *The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's solution*
10. *The social planner has no right to be wrong (i.e., planners are liable for the consequences of the actions).*

SIMPLE

easy to solve

SUMMARY *A clear problem with a clear solution.*

PROPERTIES *Predictable.
Straightforward.
Obvious.
Knowable processes.*

COMPLEX

resists solving

The problem and solution are not clear but can be understood within time.

*Many elements, although elements themselves are familiar.
Hidden root-causes.
Non-linear.
Inter-operating parts effect each other.*

WICKED

resists defining

Problem and solution are not clear and keep shifting when we try to define them.

*Ambiguous
Many elements, many hidden and some hitherto unknown.
Strong social aspect.
No right/wrong solution.
No precedent.*

5 PRINCIPLES

... for addressing complex societal challenges

WHEN ADDRESSING A COMPLEX CHALLENGE

1. *... acknowledge its complexity*
2. *... identify interdependent components & discern simplicity*
3. *... define focus (e.g. solution spaces)*
4. *... determine a strategy*
5. *... be agile*

PEACE & JUSTICE



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SUSTAINABLE DEVELOPMENT GOALS

wicked or complex?



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



'WE THE PEOPLE' FOR GLOBAL GOALS

HUMANITARIAN CRISIS

wicked or complex?



**2015 NEPAL
EARTHQUAKE**
natural disaster

REFUGEE CRISIS
man-made disaster



DATA FOR PEACE & JUSTICE

*Introduction of the objectives,
activities and assessment of this course*



DATA FOR PEACE & JUSTICE

Structure & Planning

1. INTRODUCTION

COMPLEX SOCIETAL CHALLENGES

8 September

2. (BIG) DATA, BIG PROMISE

Wednesday 14 September

3. DATA-DRIVEN INNOVATION FOR PEACE & JUSTICE

22 September

4. INNOVATORS FOR PEACE & JUSTICE : TRENDS AND CHALLENGES

29 September

5. INTRODUCING DATA RESPONSIBILITY : RISKS & HARMS

6 October

6. DATA RESPONSIBILITY (WORKING SESSION)

13 October

7. PRESENTATIONS & CONCLUSIONS

20 October

LEARNING OBJECTIVES

- *asses complex societal challenges*
- *analyse the interests and relevance of different stakeholders*
- *explain the concepts of (big) data and data-driven innovation;*
- *conduct a benchmarking and review of relevant case studies on data-driven innovations*
- *determine whether and how data might inform and/or support policies in confronting complex societal challenges;*
- *reflect both on the opportunities as well as challenges to operationalising data to tackle a complex societal challenge;*
- *evaluate the risks and harms in using data from a responsible use and innovation perspective;*

70% ESSAY ASSIGNMENT

Deadline: 7 November

ESSAY

- *Identify a Complex Societal Challenge within the domains of Development, Humanitarian Action, Peace & Justice (500 words)*
- *Indicate how an data-driven innovation (out of the lectures or based on own research) can be applied to confront this challenge (1000 words)*
- *Reflect on key challenges (in particular from a social and ethical concerns) which should be taken into consideration for implementing data-driven innovation and how to accommodate for them in the process (1000 words)*

REQUIREMENTS

- *2,500 words*
- *Read it at least once fully yourself!*
- *Proper Referencing*
- *Format: spacing 1,5 (outlined) + Times New Roman*
- *To be handed in on <https://tudelft.openresearch.net/>*

30% PRESENTATION ASSIGNMENT

First trial: October 20th

Deadline: November 7th

ASSIGNMENT

- *make a 3-minute video or interactive presentation in which they will provide a pitch to a key stakeholder on key considerations for implementing a specific data-driven innovation - on the basis of their essay*

REQUIREMENTS

- *Focus on impact*
- *Be honest, don't oversell*
- *Be original in the way you present*
- *Be clear and to-the-point.*
- *To be handed in on <https://tudelft.openresearch.net/>*

NEXT WEEK

(Big) Data, Big Promise

DATE

Wednesday 14 September

TIME

13.30 - 16.00

LOCATION

*TPM - Instructiezaal C,
Delft*

READINGS

(Big) Data, Big Promise

- A world that counts, UN Independent Expert Advisory group on the Data Revolution
<http://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf>
- Big Data and Positive Social Change in the Developing World, Rockefeller Foundation
<https://www.rockefellerfoundation.org/app/uploads/Big-Data-and-Positive-Social-Change-in-the-Developing-World.pdf>