DRS Pro Transfer

Introductory Session

Who I am

A brief introduction as we spend this week together

Prof. Dr. Hannes Rothe

Assistant professor

Educational Service Engineering &

IT-Entrepreneurship

Freie Universität Berlin

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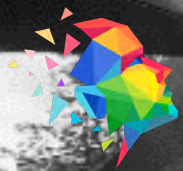
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Coordinate entrepreneurship education@fu_berlin since 2013

Founder Digital Entrepreneurship Hub

Member of European Postdocs-to-Innovators network

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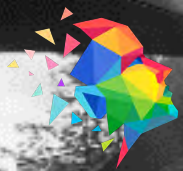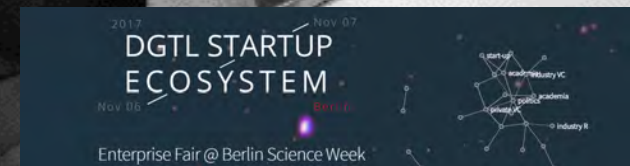Teaching bachelor, master, and PhD students across disciplines

DGTL STARTUP ECOSYSTEM

Enterprise Fair @ Berlin Science Week

DGTL ENTREPRENEURSHIP & DGTL INNOVATION WITH BIO DATA

https://www.youtube.com/embed/p46_a664a3c?mute=1&enablejsapi=1

DIGITAL ENTREPRENEURSHIP HUB

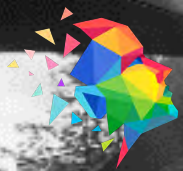Presentation by Prof. Dr. Hannes Rothe (@cpt_ftr)

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by CoKit

We create courses, together

e.g., https://www.startup.bycokit.com/

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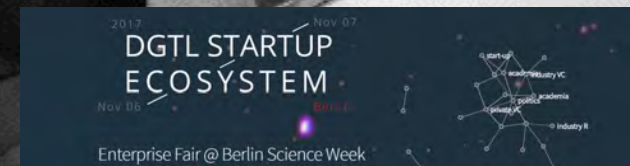
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2017 Nov 07
Nov 06

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Data-based ventures

Aivy

Mindreader

co labe

FROGO AD

stackfuel
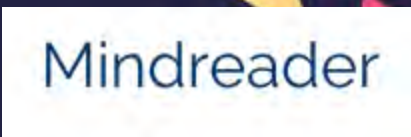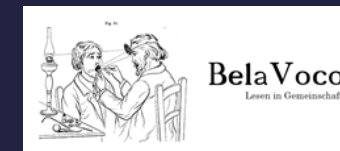
Data-based health ventures

re.adjustme
Schmerzfrei durch den Alltag

ScreenMe

famedly
menschliches verbinden

B2C E-Business

CRIMPR

BelaVoco
Lesen in Gemeinschaft

B2B E-Business

CONSTRUYO
DIGITAL.VERNETZT.BAUEN.

WAREHOUSING1

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Meet the team

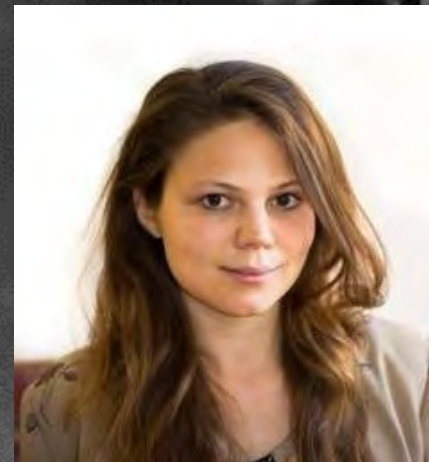A brief introduction

Andreas Voss

Founder / Concis GroupAd

Prof. Dr. Elisabeth Eppinger

Textile technology and sustainability

HTW Berlin

Alisa Fluhrer

Digital Entrepreneurship Hub

Freie Universität Berlin

Ibrahim Abdallah

Digital Entrepreneurship Hub

Freie Universität Berlin

Entrepreneurship Education

@fu_berlin

K 12/13   Bachelor   Master   PhD   Postdoc

Entrepreneurship Education
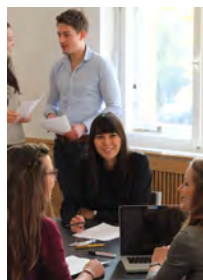
@fu_berlin
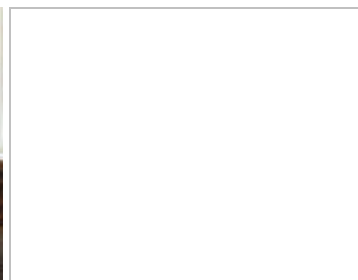
| K 12/13 | Bachelor | Master | PhD | Postdoc |

6 curr. courses,
e.g.,

8 curr. courses,
e.g.,

L2V BERLIN

Werde FUNPRENEUR

BusinessplanLab @FUB

Net Economy 2017

TransProIdee

IT Entrepreneurship

Unternehmertum in Netzwerken

EE powered by companies
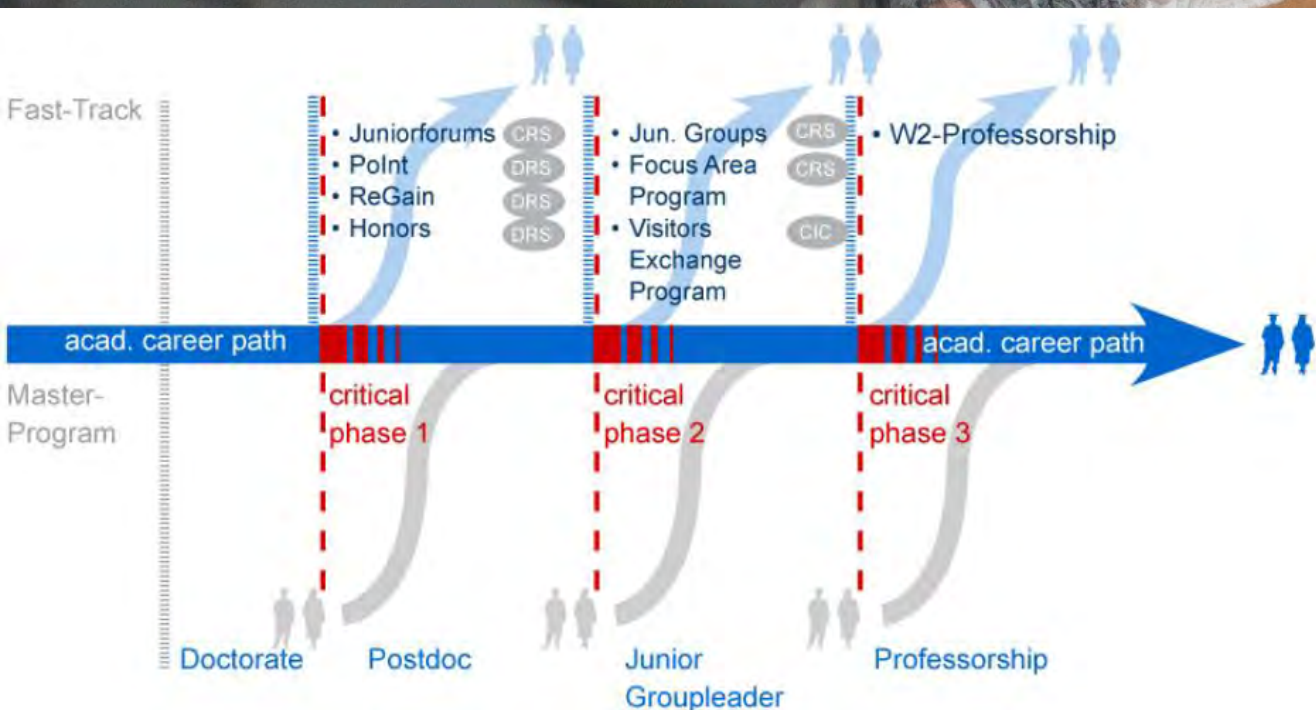
DRS Pro Business

DRS Pro Transfer

p2i

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Academic Career paths

or "why are we here, today"?

Image by Haag, R; Urner, L.: Trans Pro Idee – Lehrpreis 2014 und
Forschungscampus Dahlem, Berlin, 27.1.2015

~80-90% of master students persue
doctoral studies in chemistry
(GDCh, 2014)

Academic Career paths

or "why are we here, today"?

Fast-Track

- Juniorforums CRS
- PoInt DRS
- ReGain DRS
- Honors DRS

- Jun. Groups CRS
- Focus Area CRS
  Program
- Visitors CIC
  Exchange
  Program

- W2-Professorship

acad. career path

Master-Program

critical phase 1

critical phase 2

critical phase 3

acad. career path

Doctorate   Postdoc   Junior Groupleader   Professorship

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~80% of the Postdocs hold short-term contracts (<2 yrs)

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~15% of the Postdocs secure a tenure position (in the US)

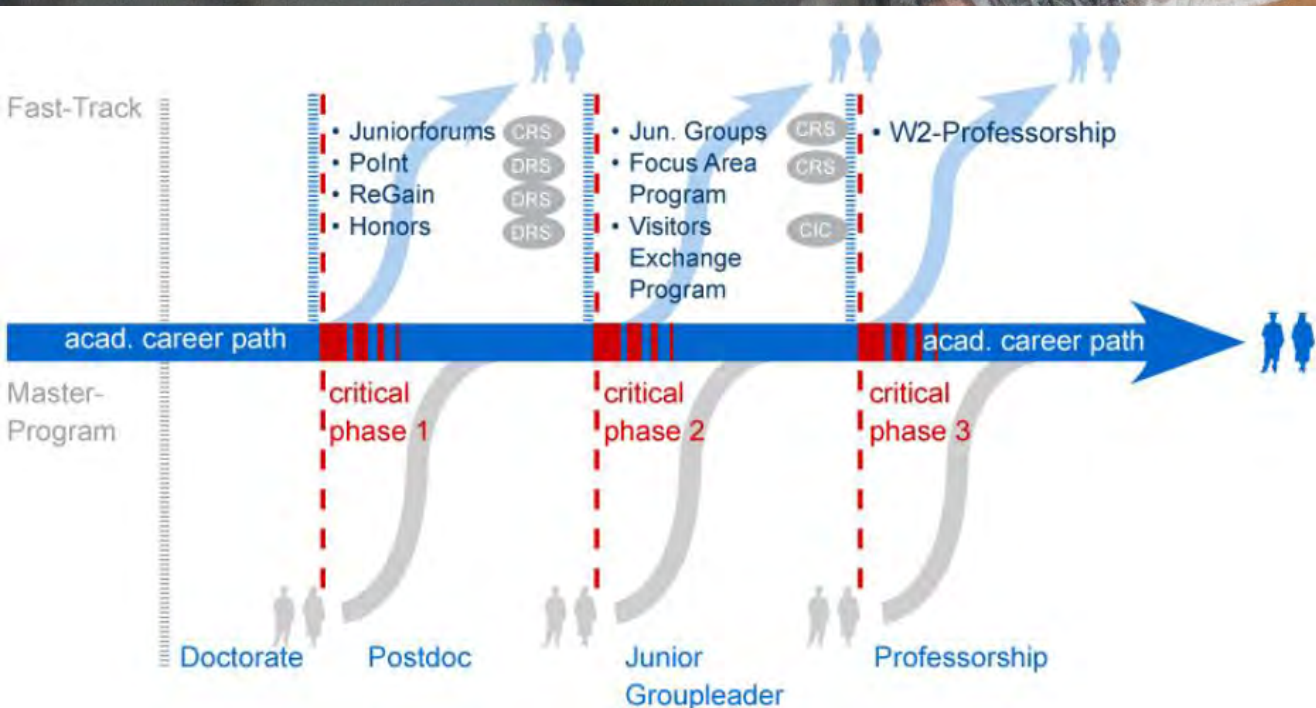~ 0.45% of science postdocs become professors
(Royal Society London 2010 report)

Image by Haag, R; Urner, L.: Trans Pro Idee – Lehrpreis 2014 und Forschungscampus Dahlem, Berlin, 27.1.2015

Presentation by Prof. Dr. Hannes Rothe (@cpt_ftr)

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Academic Career paths

or "why are we here, today"?

Fast-Track

- Juniorforums — CRS
- PoInt — DRS
- ReGain — DRS
- Honors — DRS

- Jun. Groups — CRS
- Focus Area Program — CRS
- Visitors Exchange Program — CIC

- W2-Professorship

acad. career path   acad. career path

Master-Program

critical phase 1   critical phase 2   critical phase 3

Doctorate   Postdoc   Junior Groupleader   Professorship

" *an increasing fraction end up in nonacademic or non-research careers that do not require the years of advanced research training provided by the postdoctoral position.* (NIH 2014)

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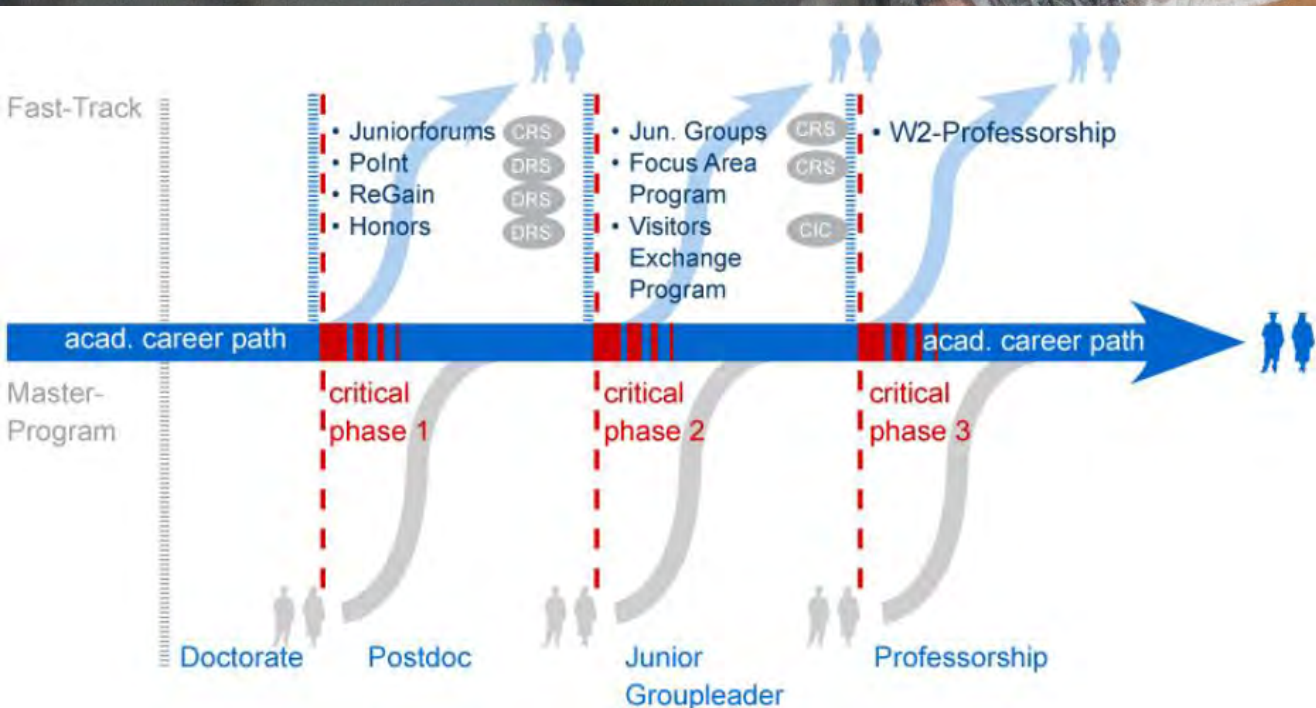~ 0.45% of science postdocs become professors
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Academic Career paths

this being said...

The perils of a postdoc job

Skills learnt as a postdoctoral researcher might not advance your career outside the lab.

Training: The perils of a postdoc job. Chris Woolston. Nature 565 (2019) 125-126

CAREER NEWS · 07 DECEMBER 2018

Why a postdoc might not advance your career

Two studies reiterate that very few postdoctoral researchers land academic posts — and suggest that the skills postdocs learn are not sought by employers outside academia.

https://www.nature.com/articles/d41586-018-07652-y

Academic Career paths

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" One potential employer interviewed said that postdocs "have all the academic science skills you don't need, and none of the organizational skills that you do". …more universities could offer programmes that teach postdocs entrepreneurial skills.

" They may not decide that they want to be entrepreneurs, but it would at least open their minds to other possibilities,"

The need for two mindsets

Need for an entrepreneurial and ecosystem mindset

The "**Independent**"
Entrepreneurial Mindset

Ref. Ndonzau, F.; Prinay, F.; Surlemont, B. (2002): A stage model of academic spin-off creation, Technovation Vol. 22, Nr. 2, S. 281-289.
Macy, W. 1968. Discovery to Patent to License. Science (162(3858), 1075.

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The need for two mindsets

Need for an entrepreneurial and ecosystem mindset

The "**Independent**" Entrepreneurial Mindset

The "**Ecosystem**" Entrepreneurial Mindset (we'll come to this on Thursday)
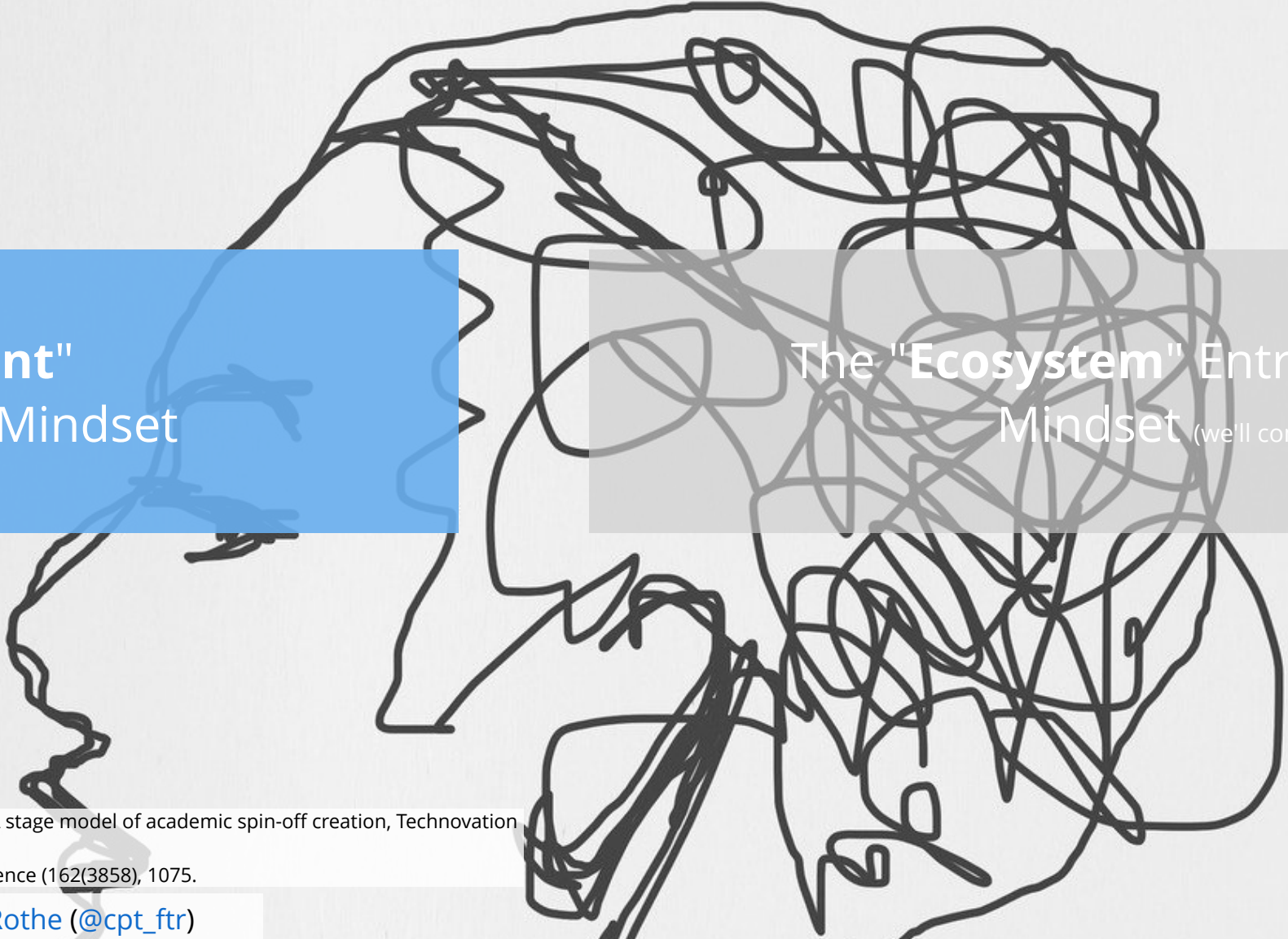
Ref. Ndonzau, F.; Prinay, F.; Surlemont, B. (2002): A stage model of academic spin-off creation, Technovation Vol. 22, Nr. 2, S. 281-289.
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The Entrepreneurial Mindset

about an entrepreneurial mindset

" *It is a world of change in which we live, and a world of uncertainty. We live only by knowing something about the future.* (Knight, 2012, p. 199)

" *An Entrepreneurial Mindset is described as 'the ability to rapidly sense, act, and mobilize, even under uncertain conditions* (McGrath et al., 2000)

Ref. McGrath, Rita Gunther, and Ian C. MacMillan. The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty. Vol. 284. Harvard Business Press, 2000.
Knight, Frank H. Risk, uncertainty and profit. Courier Corporation, 2012.

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The Entrepreneurial Mindset

Alertness under uncertainty
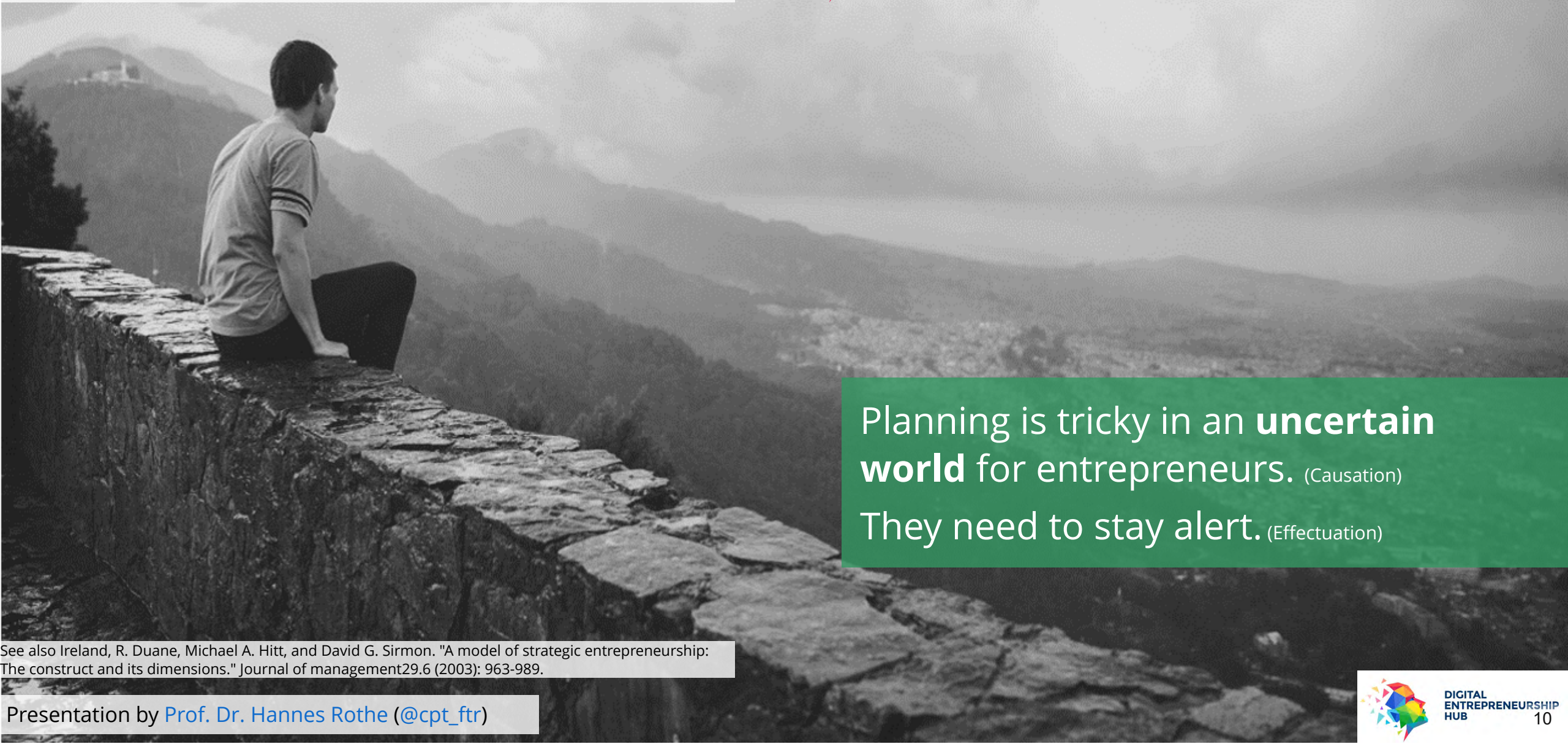
Planning is tricky in an **uncertain world** for entrepreneurs. (Causation)

They need to stay alert. (Effectuation)

See also Ireland, R. Duane, Michael A. Hitt, and David G. Sirmon. "A model of strategic entrepreneurship:
The construct and its dimensions." Journal of management29.6 (2003): 963-989.

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10

The Entrepreneurial Mindset

Allocate your resources as a t-shaped person

Know your (personal) resources, and allocate them strategically

e.g. through real option reasoning.

Enhance and leverage your capability 'portfolio'

Choose which opportunities to invest into (money and time)

Decide on timing to exploit opportunities

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The Entrepreneurial Mindset

Create a shared understanding with others

You'll hardly find all necessary capabalities for your project within yourself. Hence, you will need to team up.

See also Ireland, R. Duane, Michael A. Hitt, and David G. Sirmon. "A model of strategic entrepreneurship: The construct and its dimensions." Journal of management29.6 (2003): 963-989.

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12

The Entrepreneurial Mindset

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Entrepreneurs form their ecosystems

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Why should academics care?

career perspectives: research

Business planning &
writing **research proposals**

Anticipate the aim of your research
& build trust, that you'll manage to achieve them.

Why should academics care?

career perspectives: business

Business planning &

proposing **new project ideas**

Clarify the goal of a project for business aims & build trust that you are the right person to implement the project.

Why should academics care?

career perspectives: start-up / spin-off

Business model design / business planning & finding **new partners and investors**

Clarify your value proposition and the way to reach for it in a venture & persuade others to perceive a problem as relevant and the solution compelling

Why should academics care?

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A prior disclaimer

There is **no** one-size-fits-all entrepreneurship education

Most academics face a similar "real world shock",
however their demands largely differ

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(bio)chemistry

e.g., time-to-market (6-8 yrs), services models

(trade-off between service & development), IP

archeology

e.g., business models for non-profits,

services in B2G, IP

information systems

e.g., expected time-to-market is short,

user-centricity, IP

data science

e.g., scalability, IP

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Our plan for this week

Agenda for DRS Pro Transfer

Monday	Tuesday	Wednesday	Thursday	Friday
9:30 - 11:00 Introduction	9:30 - 15:00 Business Model Generation	9:30 - 11:00 Market & Competition	9:30 - 11:00 Access resources from the ecosystem	9:30 - 15:00 Intellectual Property
11:30 - 15:00: Ideation & Value Creation		11:30 - 13:00: Am I riding a "dead horse"?	11:30 - 13:00 Pitch training	
		13:30 - 15:00 Experiment your venture (Lean Startup)	13:30 - 15:00 Meet Freie Postdocs & Academic Ventures	15:00 - 16:00 Final Pitches
Time at co-working space	*Time at co-working space*	*Time at co-working space*	*Time at co-working space*	*Networking*

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Let's begin

Finally getting started...

"AND What?" Method

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Before we leave for the sunset....

...let me just say this:
Thank you!