Sink or swim

EAP practitioner response to the interdisciplinary knowledge environment

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The Future of EAP: Adapt or Die

BALEAP PIM November 2019

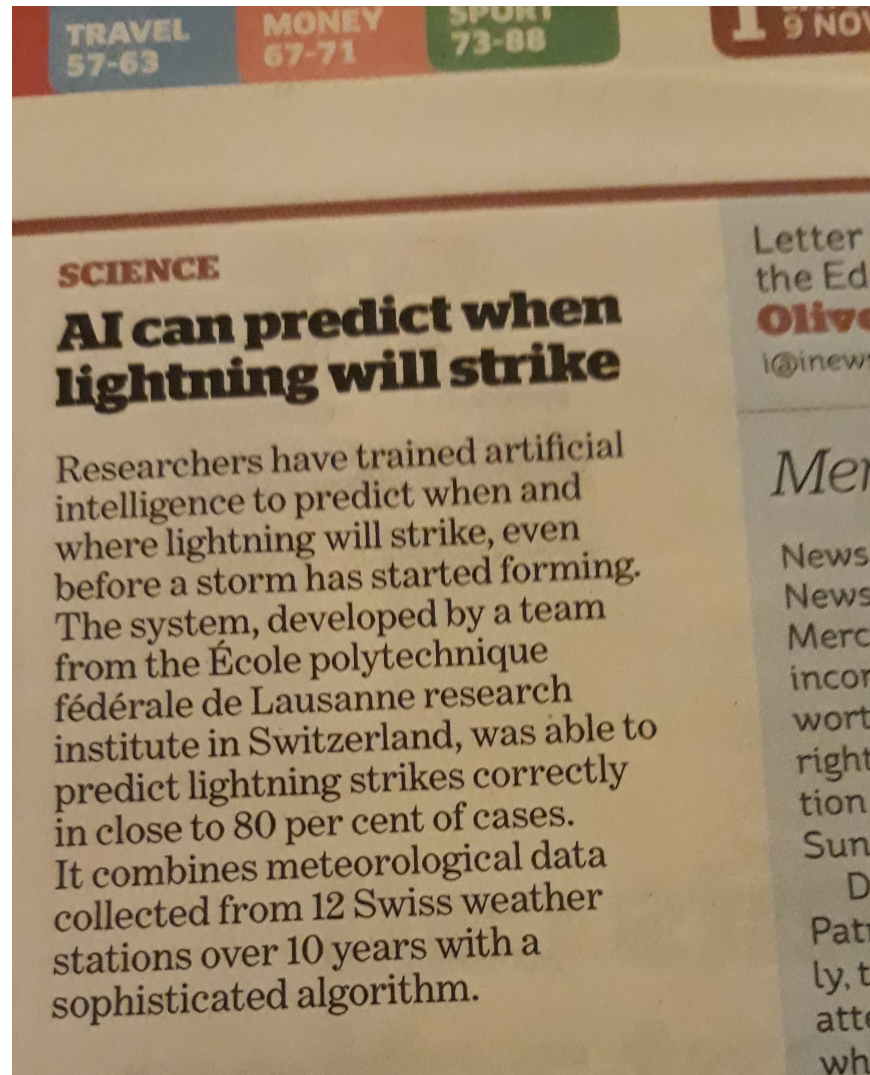Goldsmiths, University of London

Wicked problems
Rittel & Webber (1973)

TRAVEL 57-63 MONEY 67-71 SPORT 73-88 9 NOV

SCIENCE

AI can predict when lightning will strike

Researchers have trained artificial intelligence to predict when and where lightning will strike, even before a storm has started forming. The system, developed by a team from the École polytechnique fédérale de Lausanne research institute in Switzerland, was able to predict lightning strikes correctly in close to 80 per cent of cases. It combines meteorological data collected from 12 Swiss weather stations over 10 years with a sophisticated algorithm.

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MSc Sustainable Development Student Profile

35-50 students annually

more mature age range

return to study

prior disciplinary background – wide range

10+ nationalities

"NS", ESL, EFL

SD capstone project Before 2018

Problems

- Summation of studies

- Relevance to students' future careers

- Motivation

- Employability

- Creativity

15,000-word dissertation

MSc Sustainable Development Capstone Project

1
- Literature review
- 5,000 words

2
- Policy brief/Data project
- 3,000 words

3
- Reflective evaluation
- 1,000 words

HOUSES OF PARLIAMENT
PARLIAMENTARY OFFICE OF SCIENCE & TECHNOLOGY

POSTNOTE
POSTnote 538 October 2016

Green Space and Health

Overview
- Physical and mental illnesses associated with sedentary urban lifestyles are an increasing economic and social cost.
- Areas with more accessible green space are associated with better mental and physical health.
- The risk of mortality caused by cardiovascular disease is lower in residential areas that have higher levels of 'greenness'.
- There is evidence that exposure to nature could be used as part of the treatment for some conditions.
- There are challenges to providing green spaces, such as how to make parks easily accessible and how to fund both their creation and maintenance.

A range of bodies, including Government agencies, have promoted the possible physical and mental health benefits of access to green space. This POSTnote summarises the evidence for physical and mental health benefits from contact with nature, such as reducing rates of non-communicable diseases, and the challenges for urban green spaces.

School of Geography & Sustainable Development

Home   Courses   Research   News   Opportunities   Alumni   Staff

Academic literature review

- outline and critique the academic evidence underpinning your chosen SDG and focus area.

- synthesise existing evidence, identify benefits, opportunities, challenges and gaps in knowledge that need to be acknowledged and addressed in order to develop a strong evidence-base to underpin the governance and practices involved in progressing towards your chosen SDG.

- if you can show that it will provide information that is currently absent from or limited in academic sources, you may draw on 'grey literature'.

  SD5098 Module Handbook 2018-19

Policy brief

- distil the academic evidence presented in the literature review into a policy-relevant communication format, making it accessible to a non-academic audience.

- provide a brief overview of one or more policies that are relevant to your chosen SDG and present a balanced overview of the research evidence, current uncertainties and how the academic evidence can help meet policy needs in your chosen study area.

- identify policy implications/recommendations arising from the academic evidence and how these affect progress towards your chosen SGD

- read about the communication of science to help you assess what to select and how to effectively present this for a policy audience.

- note that the term 'science' is used here in its broadest sense to mean a body of knowledge that is obtained and organized in a systematic manner; it does not refer to natural or physical sciences only.

SD5098 Module Handbook 2018-19

Reflective evaluation

- explain and justify how you translated the Academic literature review into a Policy brief

- outline the reasons why you selected the information that you presented in the Policy brief

- outline why you decided to omit other evidence that you used in your Academic literature review.

- explain how these choices enabled you to maximise policy relevance whilst also presenting a critical and balanced overview that is tailored towards the interests of a non-academic audience

Insessional Provision

Remit: Equip the students with the communication skills necessary to complete the capstone project

- embedded into the capstone project module
- co-delivered with the module coordinator through workshops
- on-demand workshops, one-to-one iELS tutorials, Diss Week in iELS

What does the School say about itself? - website

School of Geography & Sustainable Development

We are a leading centre for scholarship in geography and sustainable development, and aim to integrate the study of the earth system with its landscapes, peoples, places and environments. We teach and research across the breadth of the geography discipline, also bringing together expertise in the social and natural sciences to examine and develop the principles and practice of sustainable development. Research in Geography at St Andrews was ranked top in Scotland and fifth in the UK by the 2014 Research Excellence Framework.

Courses

Research

Ideas in action
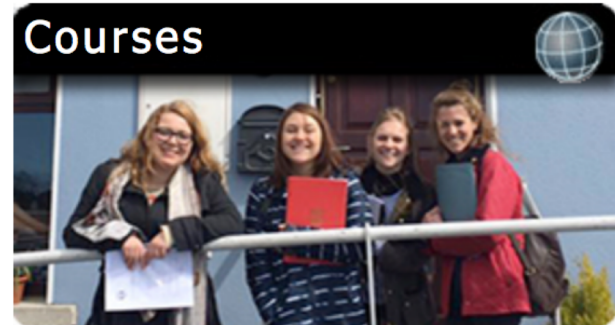
What does the School say about the programme? - website

Highlights

- Interdisciplinary teaching provides multiple perspectives. Students are taught by experts from disciplines across the University and beyond.

- Practical experience supplements leading theory.

- Skills development is integral.

What does the School say about the programme? – poster in School

Key features:

- A process that requires rigorous thinking about the interconnections and interdependencies of the physical, social, and intellectual worlds;
- Multiple pathways towards alternative futures;
- Recognition of a diversity of perspectives and new models of knowledge production and exchange

M.A. or B.Sc. in Sustainable Development

The overall goal of the SD Programme is to enable students to critically interrogate the principles, practice and plurality of sustainable development and contribute to the evolution of innovative, interdisciplinary thinking and action necessary to move towards more sustainable futures.

Original features of the SD Programme at St Andrews

- Inter and multi-disciplinary, spanning across and bridging the Social and Natural Sciences, and the Arts and Humanities;
- Flexible structure that allows students to pursue their own individual interests;
- Research-orientated;
- Problem-based learning;
- Holistic and interdisciplinary thinking;
- Provides a broad and well developed set of analytical and transferable skills that prepares excellent graduates;
- Strong record of graduate employability in a variety of settings
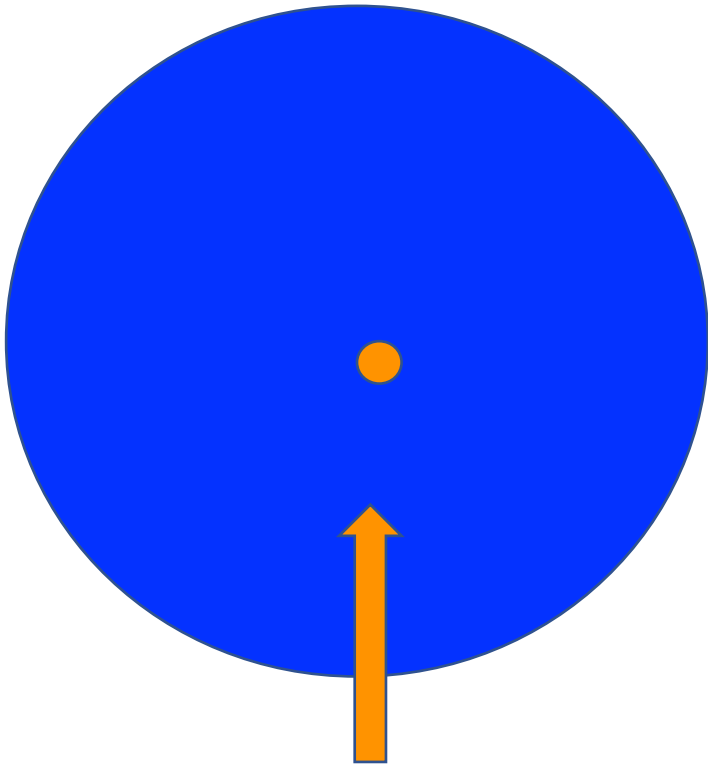- Students' diversity

Rural community in Zambia

Reflecting on crofting culture past

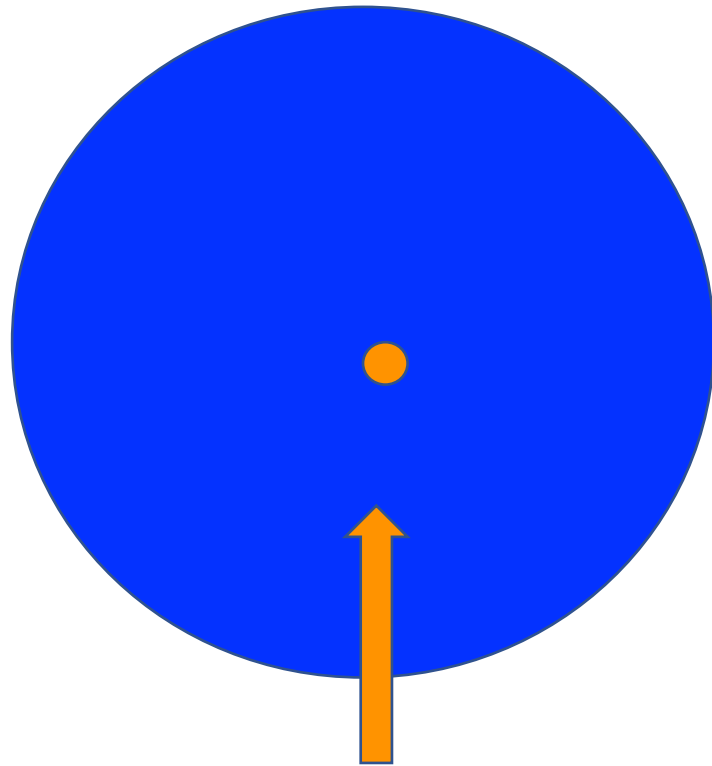SD fieldtrip
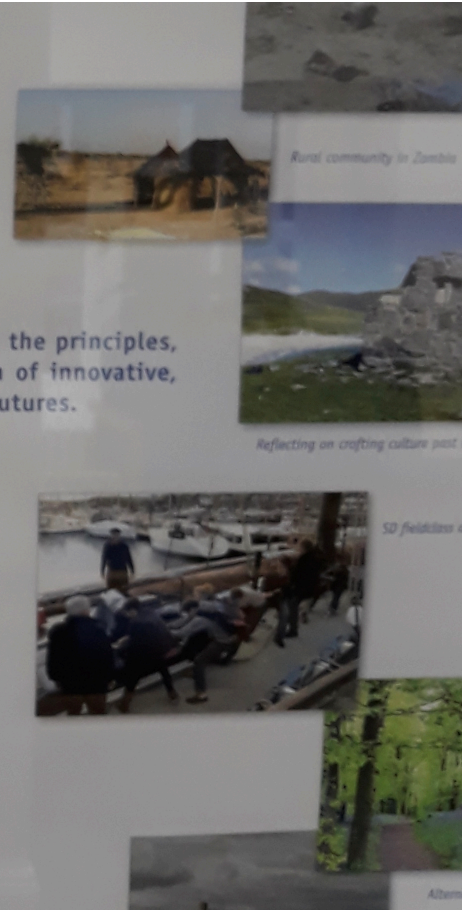
Continuum of disciplinary relationships
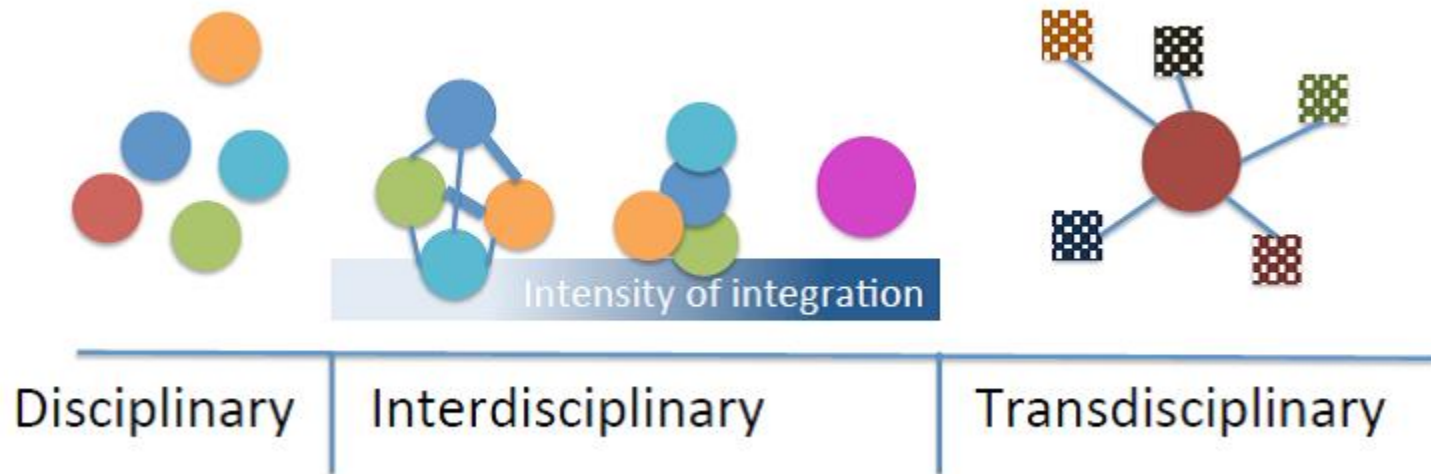
Reproduced from presentation
slides of M. Christen, 2015,
University of Basel

Communities of Practice
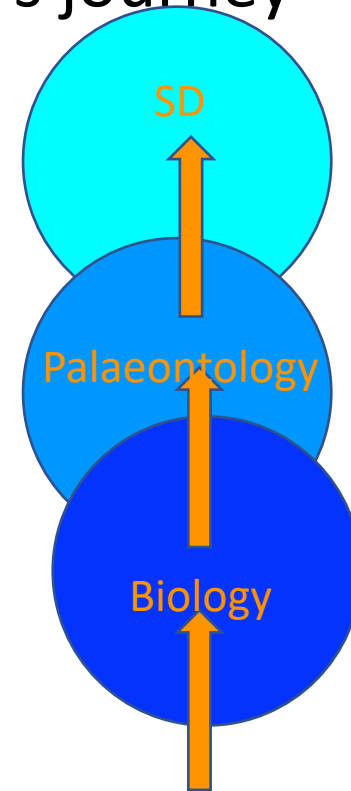# (Lave & Wenger, 1991)

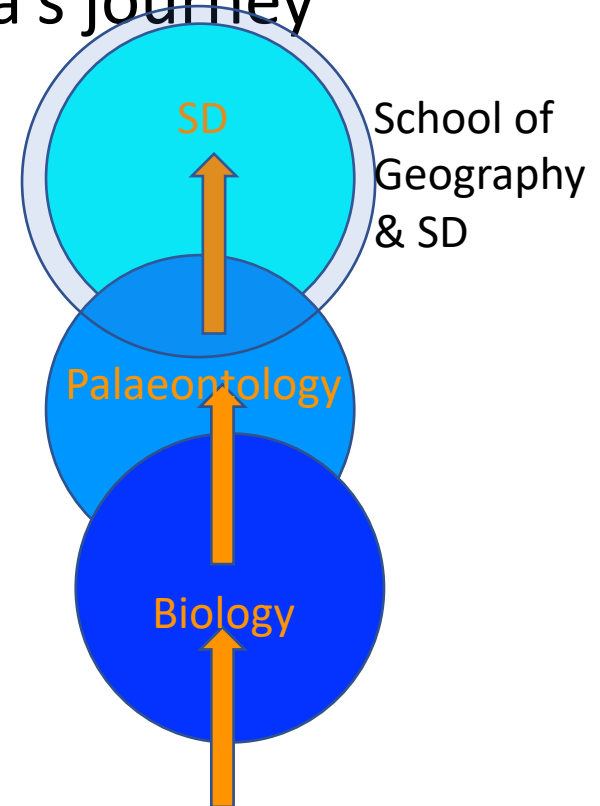# Communities of Practice (Lave & Wenger, 1991)
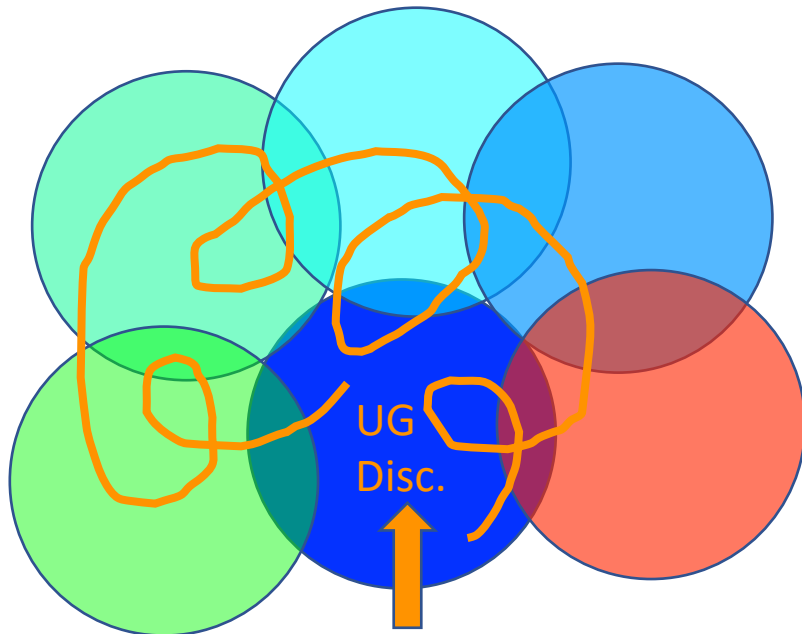
Althea's journey

Communities of Practice (Lave & Wenger, 1991)

Althea's journey

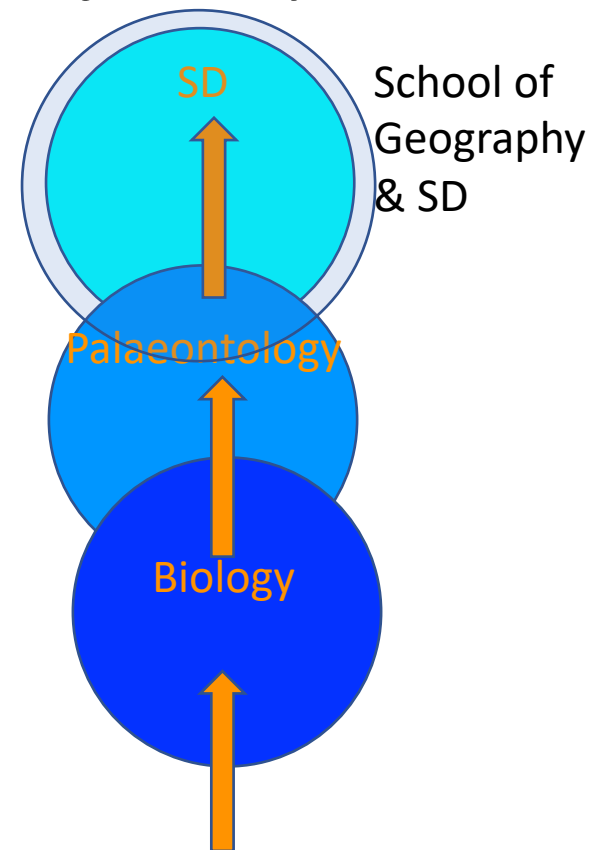SD

School of Geography & SD

Palaeontology

Biology

Communities of Practice (Lave & Wenger, 1991)

SD Master's students' journey

Althea's journey

Where do we go from here?

2019 Workshop:
Why is reading in SD so hard?

o Your parent discipline aka "academic tribe"

o What's involved in inter- / trans-disciplinary reading?

   o New ways of understanding

   o Inter- / Trans-disciplinary communication

1. Your parent discipline aka "academic tribe"

SubCultures and Urban Tribes Ultimate Bestiary

BEATNIK

ROCKABILLY

SURFER

MOD

HIPPIE

PREPPIE

METROSEXUAL

EMO

PUNK

RASTAFARI

DISCO

YUPPIE

GOTH

HIPHOP

ROMO

SKATER

JEVITRÓN

NEONAZI

HEADBANGER

GRUNGER

RAVER

HACKER

PERROFLAUTA

Reading for Argument

2018

Reading critically

Components of argument

Position/conclusion

Supporting arguments
Evidence

e.g.   statistics,

case studies, etc.
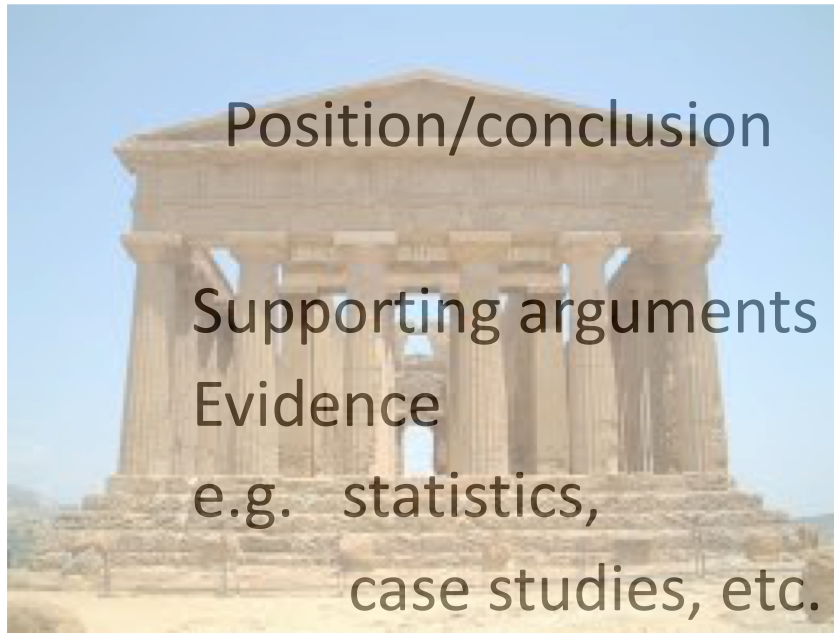
2019

Reading beyond your discipline

Components of argument

Position/conclusion

Supporting arguments
Evidence

e.g.   statistics,

case studies, etc.

Philosophy of knowledge
approaches, assumptions

2. What's involved in inter- / trans-disciplinary reading?

a. New ways of understanding

Dialogic reading (deep not surface reading)

'When reading academic literature, my starting point is always that I attempt an open approach. But I'm also in dialogue with it. I enter discussions in a different way. Um. And I always relate it to something, and twist and turn it and . . . and sometimes I also just experience it, because then I'm completely on board and find it fantastic and then **I feel like the text opens up and becomes . . . a universe** that I can step into and say: Yes! **You just made me look at my subject this way!'**

Katan & Barts, 2018: 11

Differences

- research philosophy

- focus of RQs

- conceptual approaches

- methods & techniques

- legitimate evidence

- what counts as research

2. What's involved in inter- / trans-disciplinary reading?

b. Inter- / Trans-disciplinary communication

Communicating Across/Between Disciplines

"One of the most basic challenges in interdisciplinary engagement arises from the fact that **different disciplines have very different ways of understanding things, dealing with things and representing things**: What may be of fundamental importance in one discipline may be of no more than peripheral relevance in another. When disciplines engage, these differences need to be negotiated…"

Choi & Richards, 2017:

Where is the author coming from?

- Which "academic tribe" do they come from?
  - Internet search for disciplinary affiliation
  - What are the disciplines of their collaborators?
- Which discipline(s) do they draw on in their thinking?
  - Which journals do they publish in?
  - What does that tell you about them as an academic tribe member?

Considerations in inter- / trans-disciplinary reading

- **Intellectual**
  - Conceptual foundations for developing new knowledge *in your mind and the author's mind*
  - Basis for establishing common ground *in your mind and the author's mind*
  - Complementarity of knowledge – can you think beyond cognitive dissonance?
  - Ability to assess quality of your thinking *and the author's*
- **(Inter)Personal**
  - Being open to the philosophical orientations of others re: knowledge construction
  - Ability to read/listen attentively e.g. same technical term – different meanings; same concept, different term
  - Mutual respect
  - Values diversity of thought → Willingness to engage with different perspectives

Note taking – graphical transfer

ACADEMIC GUIDE MAP FOR "THEORIES"

INVENTOR/PRIOR HISTORY

What is his/her/their discipline(s)?

Influences from other disciplines?

PARTS/ COMPONENTS

THEORY NAME

CHARACTERISTICS/ DESCRIPTORS

When she/he/they uses term X, what does she/he/they mean?

COMPETING THEORIES

SIMILAR/ANALOGOUS THEORIES

What assumptions underpin her/hi/their position?

EVIDENCE

IMPLICATIONS

Halpern, 2014: with my additions

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