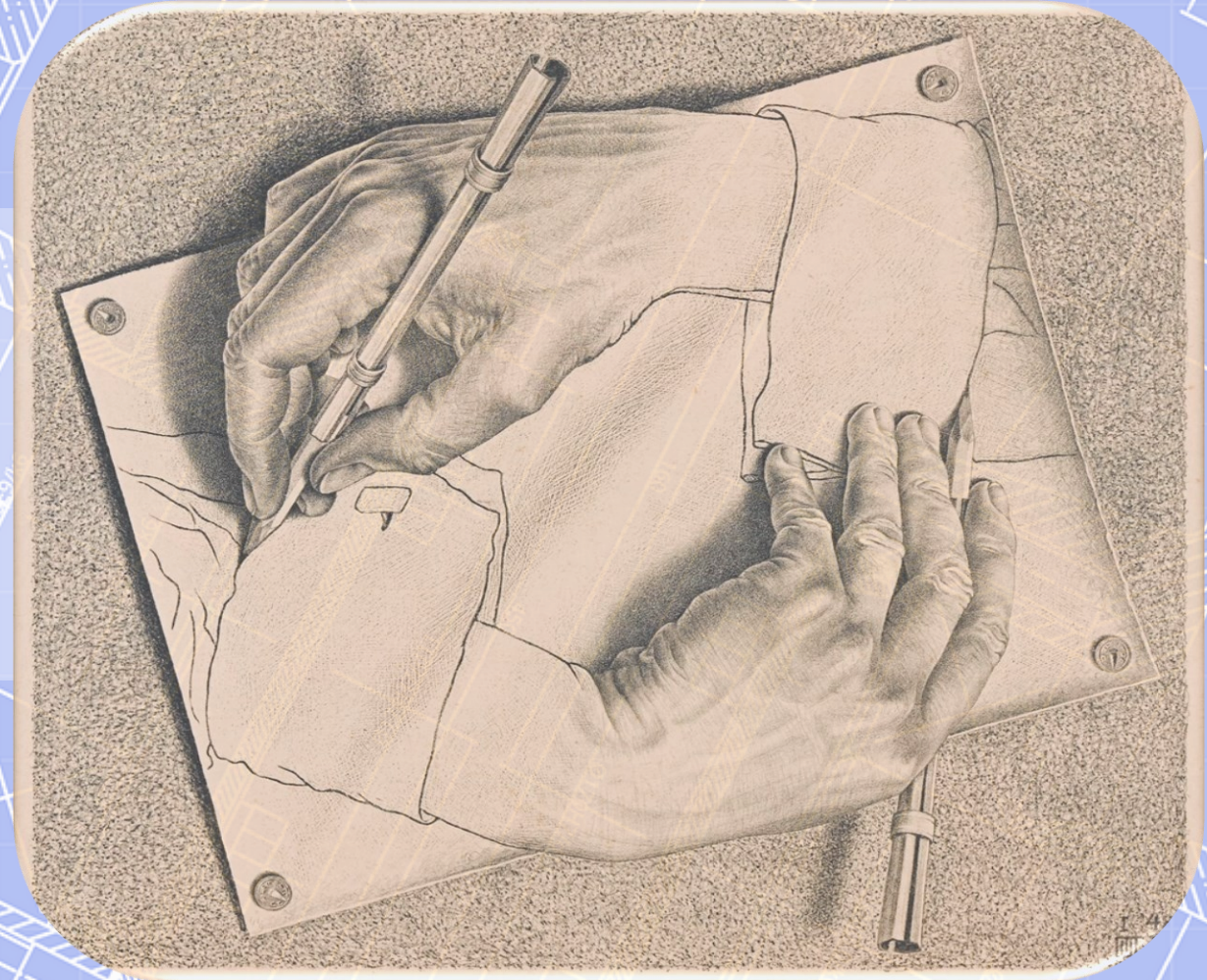


An Introduction to Interdisciplinary Academic Writing

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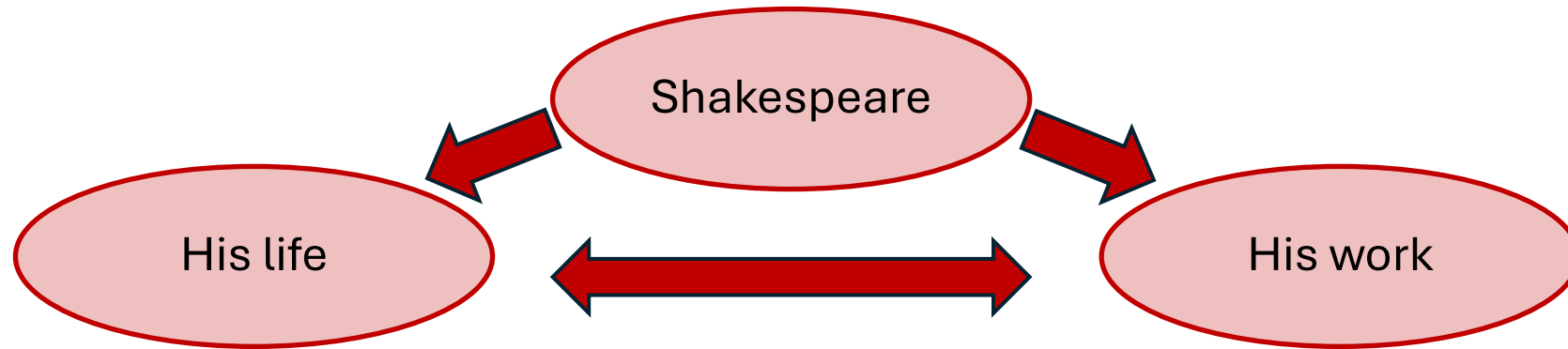


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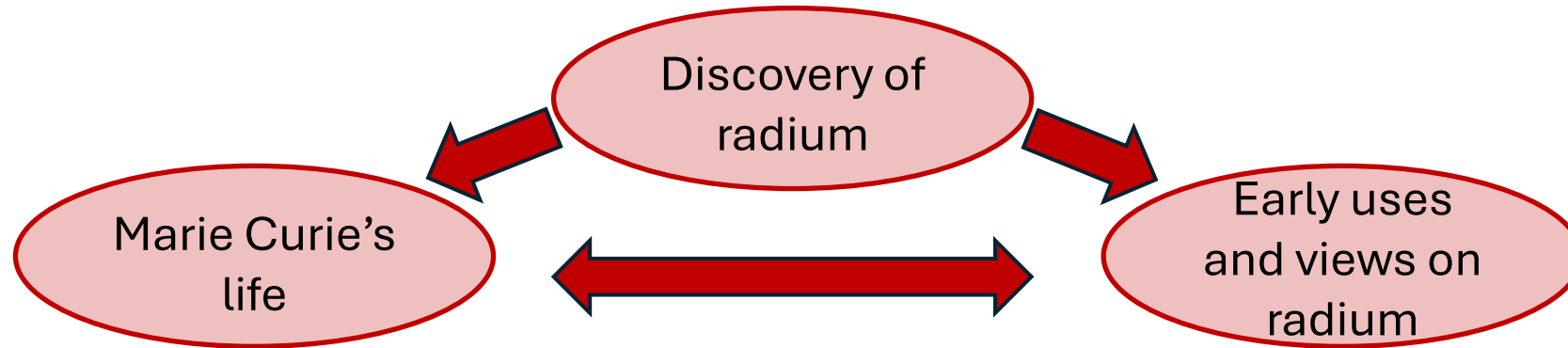
Choosing a Topic

- If you can choose your own topic, try and pick an area you are interested in. You could start with a 'mind map' to generate some ideas.



- As an example, you might pick a writer (e.g. Shakespeare) and look at (a) their life, (b) their work, (c) connections between their life and work, (d) ask whether a work of fiction *should* be related to its author's life, (e) focus on one particular piece of work or a few, (f) compare their work with the work of their contemporaries, (g) explore the relevance of their work to other periods of time (e.g. present day), (h) look at adaptations of their work, etc.

Choosing a Topic



- A different example is the work of a research scientist/group of scientists (e.g. Marie Curie). Here too, you might (a) focus on their life, (b) their scientific work, (c) connections between their life and work, (d) use them as an example to explore whether scientific research can/should be isolated from its context, (e) focus on one piece of research (e.g. radium) or more (e.g. use of x-rays), (f) explore the relevance of their work for other periods of time (e.g. the present day), (g) place them within a history of scientific discoveries, etc.

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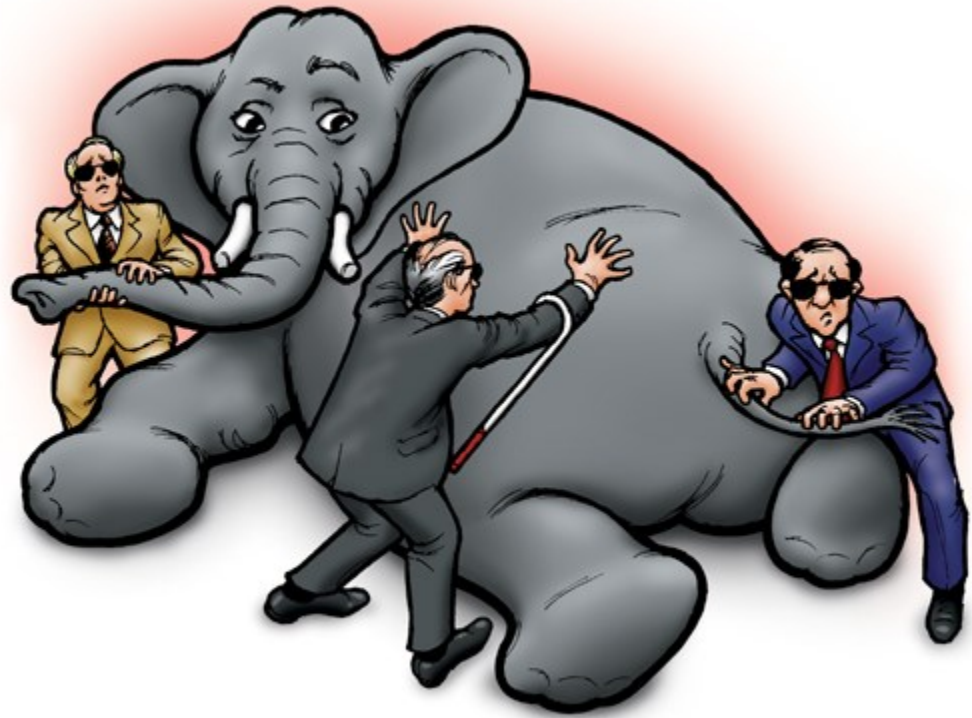
Actual Size of Vita Radium

<https://histmed.collegeofphysicians.org/for-students/radium/>

https://www.washingtonpost.com/health/the-lethal-legacy-of-early-20th-century-radiation-quackery/2020/02/14/ed1fd724-37c9-11ea-bf30-ad313e4ec754_story.html

<https://www.orau.org/health-physics-museum/collection/radioactive-quack-cures/index.html>

Interdisciplinarity



Interdisciplinarity

From William Newell (2010) 'Undergraduate General Education' in Frodeman, Klein and Mitcham (eds.)
The Oxford Handbook of Interdisciplinarity:

“Instead of rejecting the increasingly narrow specialization bred by reductionism, interdisciplinarity embraces salient specialties while transcending them as it constructs a more comprehensive understanding from their insights.” p.360

“Societal, and especially global, problems are increasingly systemic, produced by multiple causes and influenced by factors studied separately by a variety of disciplines. Individual disciplines, indeed individual perspectives whatever their source, can illuminate some single aspect of those complex problems, and multiple perspectives can offer alternative partial solutions, but only interdisciplinarity holds out the hope of moving towards full or comprehensive solutions.” p.364

“... interdisciplinary study moves beyond the mere celebration of diversity to a more critical stance, one that requires attention to the weaknesses or limitations of each perspective as well as its strengths.” p.365

Interdisciplinarity

In pairs/threes take a couple of minutes to:

- Think of one or two examples of problems/issues for which an interdisciplinary approach might be particularly useful.
- As your prompt, here is part of the Newell quote from the last slide:
“Societal, and especially global, problems are increasingly systemic, produced by multiple causes and influenced by factors studied separately by a variety of disciplines.” (Newell, p.364)

Three Steps to ID

1. Step outside your own/a discipline by critically questioning its assumptions, arguments, and kinds of evidence it privileges;
2. Make a deliberate effort to look for and keep an open mind to alternative views from other disciplines;
3. Actively try and integrate (synthesise) aspects of two or more disciplines into a coherent account/partial account of the topic/area.



Other ways are possible! See e.g. the Oxford Handbook of Interdisciplinarity 2010/2017

The 'Rules of the Game'

- Interdisciplinarity involves stepping outside a discipline, whether in sense (i), (ii), or (iii) (or in some other way).
- It should be relatively clear (discoverable, even if not explicit):
 - what a discipline's assumptions are,
 - the kinds of evidence and argument that are admissible, and
 - writing styles that are deemed appropriate.
- Once we 'step outside' a discipline, all those things can seem undefined.

The 'Rules of the Game'

- One example of a discipline's **assumption**: natural sciences tend to assume it's best to present research results in isolation from many aspects of their context (e.g. biographical details of the scientists, the political and social context of the research, the history of that topic/area, etc.).
- **Evidence** in some disciplines (esp. Literature) will be found in the literary texts being studied (perhaps together with their historical and social context). Evidence in e.g. natural sciences will be found via observation and experimental manipulation of (parts of) the world. Proving a claim or thesis (or hypothesis) will also take different forms in literature, natural sciences, and mathematics.
- Many aspects of **writing style** will be different across different disciplines, and sometimes even within a discipline.

The 'Rules of the Game'

In pairs/threes take a few minutes to:

- Describe to each other what your own discipline's 'rules of the game' are.
 - What **assumptions** do you think are made by people doing research in your own discipline/degree subject (e.g. in papers you read, or lecture content, or research methods you've been taught)?
 - What kind(s) of **evidence** does your own discipline/degree subject prioritise (e.g. observations, outputs of machines/instruments/computers, responses to questionnaires, text (factual/fictional...?), visual art...?)
 - What kinds of **writing style**(s) does research in your own discipline/degree subject make most use of (e.g. 'objective' reporting of facts, 'subjective' presentation of interpretations...)?

Critical Analysis and Synthesis

“... interdisciplinary study moves beyond the mere celebration of diversity to a more critical stance, one that requires attention to the weaknesses or limitations of each perspective as well as its strengths.” (Newell, p.365)

- By ‘critical analysis’ I mean something like ‘a very close, detailed reading of a text where what the writer is saying is extracted, and gaps, ambiguities, inconsistencies, and implications are made explicit’. Critical analysis of a text should include notes that reference the text.
- By ‘synthesis’ I mean the combining or integrating of ideas. One example: combining sociological, anthropological and economic analyses of vaccine hesitancy. Another example: combining sociological and political analyses of social media disinformation.

Planning Your Essay

- You should, in your analysis, summarise exactly what your sources are saying, and identify any gaps, ambiguities, inconsistencies in, and implications of what they say. That will form part of the basis of what you are going to add to what you have read.
- Try and identify a debate or difference of views in your sources. You can use this in your evaluation (i.e. siding with one, some or none of your sources).
- Use the bibliographies of texts! They will help you form a 'map' of topics you are unfamiliar with. Pick the most relevant/cited.

Planning Your Essay

- To use your time efficiently, read the introductions/abstracts to books and articles. Well-written books/articles will outline their aims, arguments, and structure in their abstracts/introductions. You can use that to focus your reading.
- Your ideas are likely to evolve as you read/research! Try and be flexible but keep your main goal(s) in mind (e.g. requirements).
- Keep track of time! Start early enough.
- Start with a plan! Sketch out your structure (e.g. sections) and argument. Fill in, edit, rewrite!

Writing Your Essay

- Disciplines have their own ways of doing things – ‘rules of the game’ (e.g. styles of writing, styles of argument, standards of proof and kinds of permissible evidence).
- When writing across disciplinary boundaries, what standards and styles do we choose? There’s no simple answer. Much will depend on your intended audience and purpose. If, e.g., you’re writing mainly for people from a different discipline, you’ll probably need to make concessions to their styles and standards. It’s *always* a good idea to set out your methodology clearly at the beginning.
- Also remember that your aim should be to convince people of your argument(s) – some compromises may be necessary.

The Hook!



The Hook!

- Even complex interdisciplinary research can be framed in a way that provides non-specialist audiences with some sense of what it is about.
- Hook your audience in with something accessible to a non-specialist audience!
- Imagine you are at a social gathering where someone asks you what your research is about. Suppose they aren't familiar with the disciplinary approach(es) your research draws on. How might you tell them about your research?
 - Is there a wider context to your research that could help make it accessible?
 - Are there comparisons or analogies or simplifications you can use?
 - If you can't easily communicate your results, can you communicate your motivations, or what you set out to achieve?