



THE UNIVERSITY of EDINBURGH  
**informatics**

# Informatics Research Review: Tutorial 4

Academic year 2024-2025

Semester 1, Week 6



THE UNIVERSITY of EDINBURGH  
INFORMATICS FORUM

# Overview

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1. Building an Argument (20 min)
2. Use of References to Substantiate Critical Arguments (30 min)



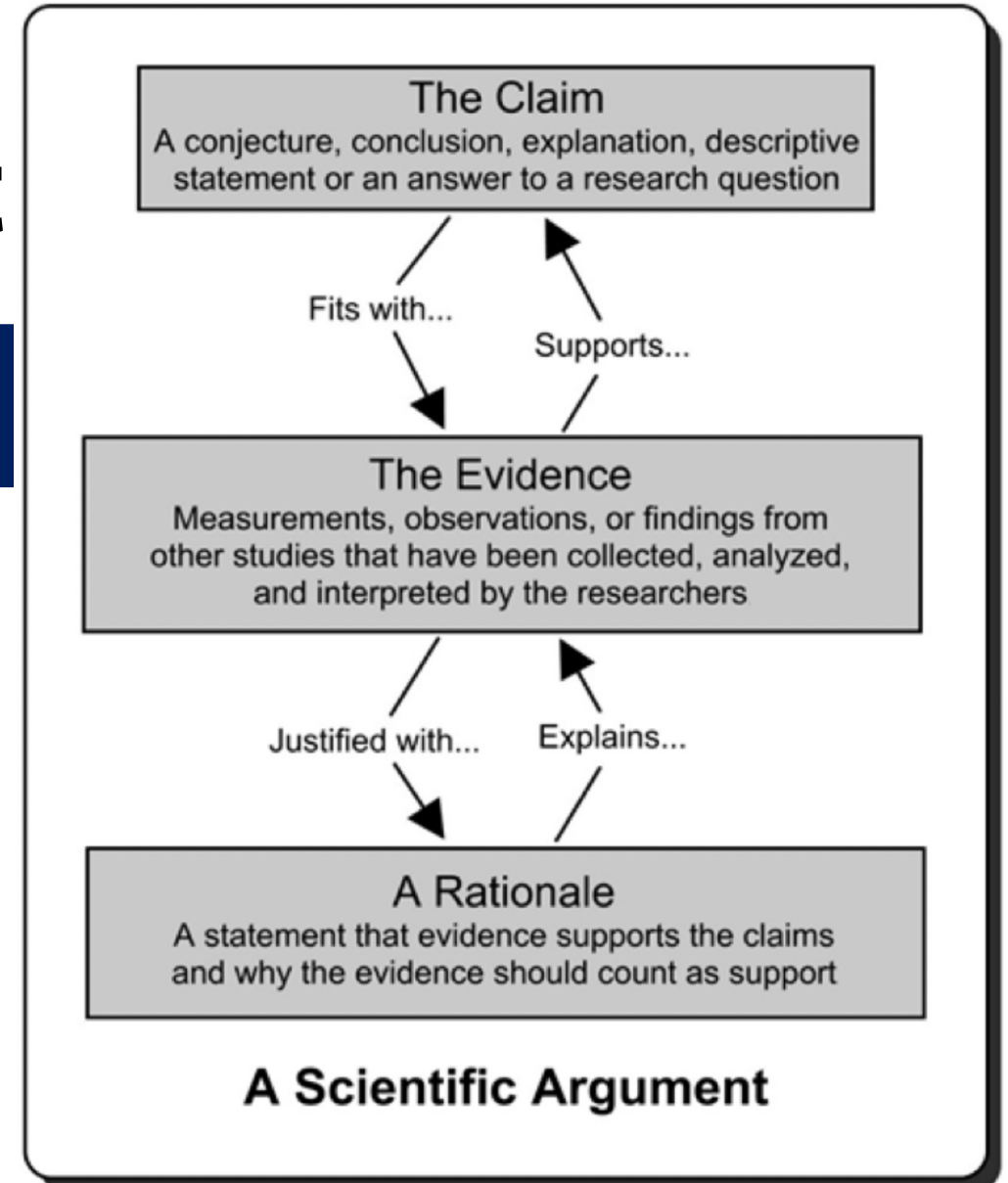
# Building an Argument

**Claim:** a statement or assertion that expresses a specific point or idea. It is typically an opinion or conclusion that is open to debate and requires support.

**Argument** is a **structured presentation of reasons and evidence** that is used to support or refute a claim. It includes not only the claim but also the justification for why the claim should be believed or accepted.

**Rationale:** Explain why the evidence supports the claim.

**Evidence:** Measurements, observations, findings from relevant studies that support or challenge the claim.





# Building an Argument - Example

**Claim:** "Online learning is more effective than traditional classroom learning."

**Argument:** "Studies show that students who participate in online learning demonstrate higher engagement and improved retention rates compared to traditional classroom learners. For example, a study by Smith et al. (2020) found that 80% of students in online courses scored 15% higher on final assessments. This suggests that online learning environments provide more flexible and personalised learning experiences, which lead to better outcomes. One of the strongest critiques of online learning is that it lacks the face-to-face interaction that is essential for building interpersonal skills and collaborative learning, which are critical components of education (Robinson et al., 2017). While it is true that face-to-face interactions are limited in online environments, many online platforms have incorporated video conferencing, discussion forums, and peer review systems to foster communication and collaboration. Additionally, online learning often requires students to engage in more self-directed and independent learning, which is an equally valuable skill in both educational and professional contexts. By addressing common concerns about online education—such as limited face-to-face interaction—it becomes clear that modern technological advancements have minimised these challenges. As a result, online learning is emerging as a superior mode of education, especially in a world that increasingly values adaptability and accessibility. "





# Building an Argument – Key Differences

	Claim	Argument
<b>Scope</b>	a single statement or assertion	a complete reasoning process that includes the claim along with supporting evidence and explanation (rationale).
<b>Function</b>	introduces the position or point you want to make.	explains <b>why</b> that position is valid and <b>how</b> it is supported by evidence.



# Building an Argument – Exercise A1

**Claim:** “AI-driven automation will create more jobs than it displaces in the workforce”.

## Individually:

1. Write down a brief **argument** about what you expect to investigate relating to this claim.
2. Use relevant references (quotes, statistics, white papers, news, journal articles, etc.) to **substantiate/corroborate** your argument.



# Building an Argument – Exercise A2

## Group activity:

1. Split into small groups and share your argument & references in group.
2. Debate the argument within the group.

# Use of References to Substantiate and Corroborate Critical Arguments – Exercise B1

## Individually

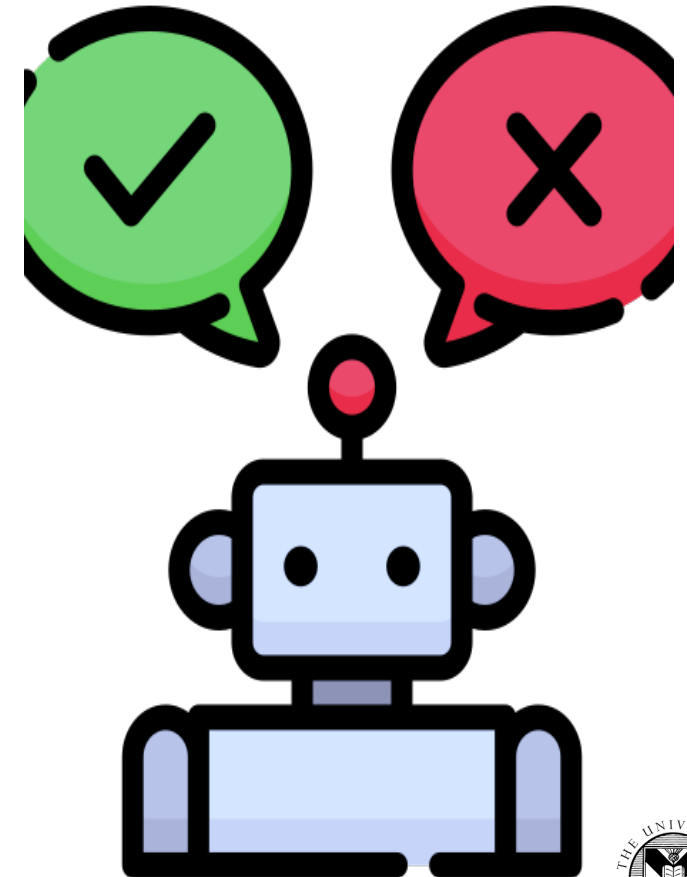
**Task:** Write a small paragraph for your argument

**Length:** Your paragraph should be up to 300 words.

**Structure:** The post should include a short introduction, main body, and conclusion.

**References:** Use as many references, quotes, statistics, and any other publicly available information as necessary to corroborate and substantiate your stance and arguments. Cite your sources appropriately.

**Objective:** Provide a well-reasoned argument for what you want to investigate.



# Use of References to Substantiate and Corroborate Critical Arguments – Exercise B2

## Group activity:

1. Two volunteers share their paragraphs.
2. If time permits discuss with the entire group.