

Digital society: systems and evidence

Supported preparation only; actual school choices and assessed work remain separate

Data, decisions and accountability: method

Data, decisions and accountability: method

Data are recorded values; information gives them contextual meaning. An algorithm maps inputs to outputs under specified rules. A prediction is not a cause.

Privacy concerns collection, access, use and retention; power includes who defines the goal and who can challenge a decision.

Data, algorithms and digital power: source representation

Original source / task evidence

Original case: a practice recommender stores missing quizzes as zero and assigns easier work. Analyse the mechanism and one remedy.

Separate what is stated from the interpretation.
Data, decisions and accountability

Original fictional task source; not an authentic selected work.

Data, decisions and accountability: worked case

Data, decisions and accountability: worked case

Original case: a practice recommender stores missing quizzes as zero and assigns easier work. Analyse the mechanism and one remedy.

Identify the evidence before reading the model.

Data, decisions and accountability: reasoning

Data, decisions and accountability: reasoning

Missingness can arise from absence or failed access rather than low ability. Converting it to zero changes the inferred ability and can restrict opportunity.

Distinguish missing from observed zero, investigate causes, allow correction and test outcomes across affected groups. High average accuracy does not establish equal errors.

Data, decisions and accountability: your transfer

Data, decisions and accountability: your transfer

The developer proposes collecting family income to explain missing quizzes. Evaluate this response.

Pause and give an individual answer with reasons.

Data, decisions and accountability: transfer review

Data, decisions and accountability: transfer review

A proposed variable needs direct relevance, school permission, data minimization and protection. Investigate connection failures and allow missing-data correction first where feasible.

More sensitive data do not automatically improve fairness and may create new privacy or exclusion risks.

Infrastructure and material consequences: method

Infrastructure and material consequences: method

Network access depends on devices, power, connectivity and service providers. AI-based recommendations use patterns in training data; an autonomous system may also act.

Evaluate a service through completed outcomes and failure conditions, including energy and maintenance.

Networks, media and automation: source representation

Original source / task evidence

Task: a fictional clinic registers 500 remote-consultation accounts but completes only 120 timely consultations. What follows?

Separate what is stated from the interpretation.
Infrastructure and material consequences

Original fictional task source; not an authentic selected work.

Infrastructure and material consequences: worked case

Infrastructure and material consequences: worked case

Task: a fictional clinic registers 500 remote-consultation accounts but completes only 120 timely consultations. What follows?

Identify the evidence before reading the model.

Infrastructure and material consequences: reasoning

Infrastructure and material consequences: reasoning

Registration shows uptake at one stage, not effective healthcare access. Inspect failed connections, device sharing, staff availability, patient groups and existing alternatives. Compare completed timely consultations and relevant access barriers before and after implementation, with a suitable comparator where possible.

Include privacy, power reliability and environmental costs.

Infrastructure and material consequences: your transfer

Infrastructure and material consequences: your transfer

Timely consultations rise mainly among people already well served. Has equitable access improved?

Pause and give an individual answer with reasons.

Infrastructure and material consequences: transfer review

Infrastructure and material consequences: transfer review

The overall count can rise without reducing exclusion. Compare completion and barriers for previously underserved users, using compatible definitions and periods.

Evaluate alternatives, costs and unmet need before claiming equitable improvement.

Inquiry and communication: method

Inquiry and communication: method

A focused question names a system, population, outcome and boundary. Compare sources by method, purpose, date and direct relevance.

Keep claim, evidence and uncertainty distinct in the process record and presentation.

Researching impacts and implications: source representation

Original source / task evidence

Task: a vendor reports satisfaction from users who completed a booking; an independent survey includes unsuccessful users. Plan a comparison.

Separate what is stated from the interpretation.
Inquiry and communication

Original fictional task source; not an authentic selected work.

Inquiry and communication: worked case

Inquiry and communication: worked case

Task: a vendor reports satisfaction from users who completed a booking; an independent survey includes unsuccessful users. Plan a comparison.

Identify the evidence before reading the model.

Inquiry and communication: reasoning

Inquiry and communication: reasoning

Compare the sampling frames and definitions before comparing percentages. The vendor may accurately describe completers while omitting failed access. The broader survey may better address access, yet still face nonresponse.

A defensible question asks how the named system affects successful booking for a defined group. Retain references and explain source disagreement in multimedia evidence.

Inquiry and communication: your transfer

Inquiry and communication: your transfer

Both surveys show satisfied users. What causal claim remains unsupported?

Pause and give an individual answer with reasons.

Inquiry and communication: transfer review

Inquiry and communication: transfer review

Satisfaction reports do not establish that the system caused improved access or outcomes. Recruitment, prior expectations and alternatives may differ.

A relevant before/after and comparison design, with failed users included appropriately, would improve inference.

Check yourself

Independent retrieval

An automated ranking is accurate on average but gives one group many false negatives. Design an evidence-based review and a feasible intervention.

Write your reasoning before comparing it with the methods and limits taught in this lesson.