Exercise walk-through

2.1

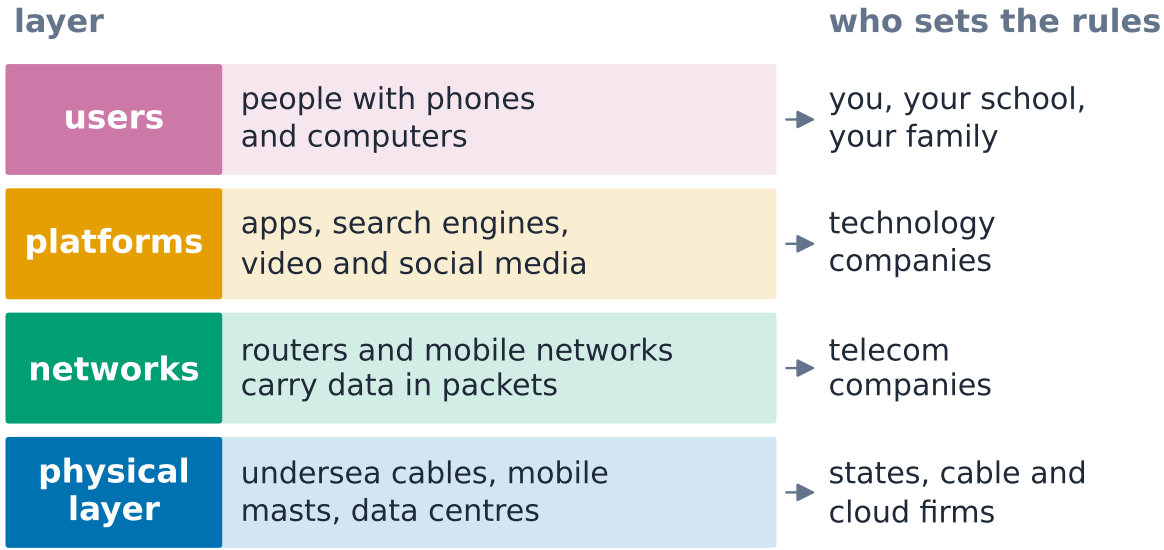
Infrastructure and material consequences: supported rehearsal

International Baccalaureate · IB Diploma · Digital Society · HL

Computers and networks

- A **computer** runs **software** (instructions) on **hardware** (the physical machine).
- For decades the number of transistors on a chip roughly doubled every two years, so computers became smaller, cheaper and more powerful.
- A smartphone today is a powerful computer that most people carry everywhere.
- The **internet** is a network of networks.

Figure: Computers and networks



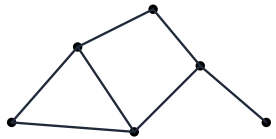
- Each layer has owners, and each owner can set rules for the layers above it.
- Match each part of the diagram to the text.

Working with sources

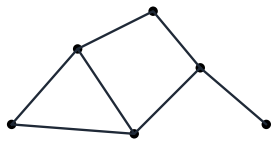
- Sources: the 2018 *Science* study (researchers: false news spreads faster); a platform statement about labelling false posts (company: the problem is under control).
- Own example: the 2011 salt panic, which spread by text message as well as social media, so the problem is older than today's apps.
- Judgement: social media makes false information faster and wider, but ranking by **engagement** is the main cause, and it can be changed.

Exercises 2.1·2.2

2.1 Name the five content areas this topic covers. [5]

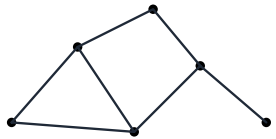


2.2 What does each network layer decide, in one phrase? [2]



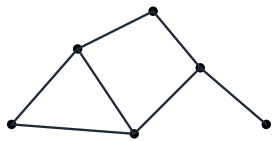
Exercises 2.1·2.2

2.1 Name the five content areas this topic covers. [5]



2.1 Computers (1); networks and the internet (1); media (1); artificial intelligence (1); robots and autonomous technologies (1).

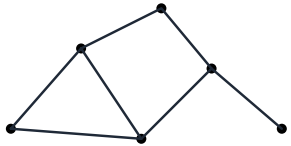
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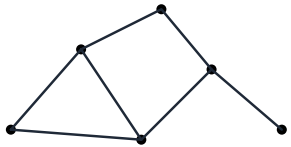
2.2 Its owner decides its rules (1); the layer is a choke point (who controls it controls what passes) (1).

Exercises 2.3·2.4

2.3 What is delegated by AI, and what more by robots? [2]

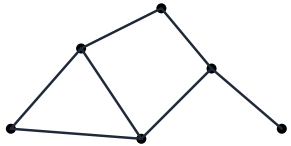


2.4 Name the three ways every source is read. [3]



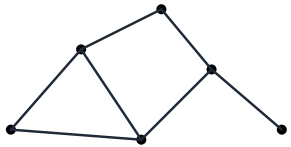
Exercises 2.3·2.4

2.3 What is delegated by AI, and what more by robots? [2]



2.3 AI delegates decision (the judgement moved elsewhere) (1); robots add delegated action (the doing moved too) (1).

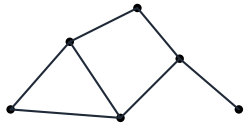
2.4 Name the three ways every source is read. [3]



2.4 Claim (1); perspective (1); provenance (1).

Exercises 2.5·3.1

2.5 What does a ranked feed reward, and what does it not reward? [2]

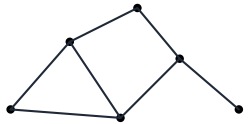


3.1 *(Layer style.)* A school blocks one video platform on its network. Explain the action through the choke-point idea, and name one context that sharpens the question. [4]



Exercises 2.5·3.1

2.5 What does a ranked feed reward, and what does it not reward? [2]



2.5 Engagement (1); not accuracy (1).

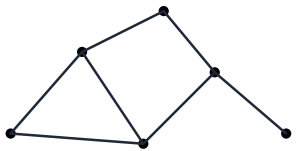
3.1 *(Layer style.)* A school blocks one video platform on its network. Explain the action through the choke-point idea, and name one context that sharpens the question. [4]



3.1 The block acts at a network choke point: the school owns the layer the traffic must cross, so it sets that layer's rules (2); context: the social context (what the school community may share) or the political context (who governs speech in institutions) sharpens the question (2).

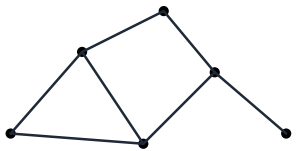
Exercise 3.2

3.2 *(Delegation style.)* The essay classifier flags one student's drafts as weak all term. Read the delegation through one content area and one context. [4]



Exercise 3.2

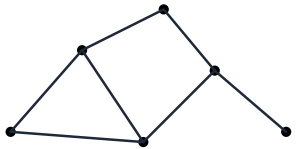
3.2 *(Delegation style.)* The essay classifier flags one student's drafts as weak all term. Read the delegation through one content area and one context. [4]



3.2 Content area: AI, delegated decision: the judgement about writing quality moved from teacher to classifier (2); context: human knowledge (what counts as good writing) or social (who gets encouraged): the same flag means different things per context (2).

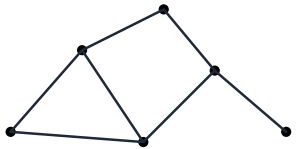
Exercise 3.3

3.3 *(Source style.)* Weigh the platform's claim that ranking serves relevance against the student creator's testimony. [3]



Exercise 3.3

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3.3 The platform's claim (ranking serves relevance) comes from the seller of attention, whose perspective benefits from the ranking story (1); the creator's testimony (the meme travelled furthest) is participant-observed, credible on reach but not on mechanism (1); weighing: the two agree that engagement drives distribution, so relevance is at best half the story (1).

Local review guidance: (R1) 3.1 argues the layer, not the opinion; 3.2 names the delegation moved; 3.3 weighs rather than stacks. Authored guidance.