

## Australia is connected to the world by cables no thicker than a garden hose – and at risk from sharks, accidents and sabotage

### Level 2: Intermediate

**Article summary:** This article talks about how much the internet relies on cables and how vulnerable those cables are, using Australia as an example.

**Time:** 60 minutes

**Skills:** Reading, Speaking, Writing

**Language focus:** Passive voice for unknown agents

**Materials needed:** One copy of the worksheet per student

### 1. Warmer

- a. This activity aims to make students aware of the location of Australia and its implications. Encourage students to think about how big Australia is, and how remote it is compared to other countries. Ask them to consider how the lack of any land borders can be a benefit but also a risk. Have them read the lesson title and consider the information in the title in the context of the questions.

Some most known island nations include: The UK, Ireland, Iceland, Malta, Cyprus, New Zealand, the Philippines, Sri Lanka, Cabo Verde, Madagascar, most of the Caribbean like Barbados, the Bahamas, Dominica, etc.; and the Pacific Islands like Nauru and Fiji, etc. You can search the internet for a complete list to verify your students' answers. Note that Australia isn't considered an island nation outright because it has the continent status; however, like an island nation, it has no land borders and is surrounded by water. Australia is sometimes referred to as an 'island continent'. One difference then is that Australia is considerably larger than any other nation surrounded by water.

### 2. Key words

- a. Ask students to do this task individually and then compare their answers in pairs or small groups. As an extension activity, ask students to highlight the key words in the article and then think of their own example sentences for each word.

**Key:**

1. *vulnerable*
2. *sabotage*
3. *immune*
4. *infrastructure*
5. *backbone*
6. *bandwidth*
7. *cease to exist*
8. *disrupt*
9. *geopolitical*
10. *reinforce*
11. *dredge*
12. *anchor*
13. *statecraft*
14. *resilience*
15. *engagement*

### 3. Comprehension check

- a. Students answer the questions based on the information in the article. Encourage students to answer in complete sentences, e.g. in item 1, they may say, 'There are roughly 15 cables connecting Australia to the internet' or similar.

**Key:**

*Suggested answers:*

1. *There are roughly 15 cables connecting Australia to the internet.*
2. *Each cable is as thick as a garden hose (typically 12.55 mm diameter).*
3. *The cables are under threat from sabotage, accidents, hacking and sharks.*
4. *99 per cent of Australia's data travels through these cables.*

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5. *The cables are the backbone because they provide almost all the connection (99 per cent) and are the only way to get a high bandwidth (necessary for video).*
6. *Boats represent a bigger danger because sharks are only responsible for 0.1 per cent of damage.*
7. *Tonga lost its connection to the internet.*
8. *The new cables belong to telecommunication companies and Amazon, Meta and Google.*
9. *It is difficult to know if cables are deliberately damaged because they are on the bottom of the sea floor.*
10. *Doesn't say it directly but probably not—the article talks about all the dangers and none of the protections mentioned are considered effective.*

#### 4. Key language

- a. This activity helps students look at the form of the passive voice (object + *be* + past participle). The name (passive voice) and the use of the structure is not described but this exercise could lead into a detailed look at the passive voice. The reason the passive voice is used so much in the article is because the agent (the person doing the action) is unknown, i.e. no one knows who does the action, e.g. damaging cables. As an extension activity, ask students to look for examples of the passive voice in the article. The exercise uses or is based on those examples.

**Key:**

1. *connected*
2. *damaged*
3. *sabotaged*
4. *cut*
5. *owned*

- b. Students complete the sentence using the same verbs from the previous activity.

**Key:**

1. *owned*
2. *connected*
3. *sabotaged*
4. *cut*
5. *damaged*

- c. Students write three personalised sentences using three of the verbs from the previous activity. To encourage students to use verbs they are less familiar with (e.g. sabotage), consider making this into a game and awarding points based on the difficulty of the verb (cut, own = A2; connect, damage = B1; sabotage = C2). Invite students to challenge themselves and get creative as they write their own sentences. Save some time for students to share examples of their work.

#### 5. Discussion

- a. Students discuss the statements related to the article and give their reasons and justifications for each answer, referring to their own experiences wherever possible.

#### 6. In your own words

- a. Ask students to think about the advantages and disadvantages of underwater cabling. If possible, have students research more information about what underwater cables allow us to do and how vulnerable they are. Ask them to consider how dependent modern life is on the internet and what effects removing the internet would have on them personally and on society at large. Have them think about how realistic it is to protect the cables that connect us to the internet.

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- b. Ask students to read the imaginary post from a member of a government of an island country. The post talks about taking money away from protecting an old way of life (life by the water) and investing in a new life (a technological life in the city).

Encourage students to think about how dependent modern, technological life is on protecting ocean-based cables. Ask them to write a reply to the post in which they convince the government of the importance of protecting underwater cables. Have students explain the possible dangers and what the consequences are of not protecting the cables. Tell students that they can use the phrases provided to help them. The phrases are for when someone has not realised something important and also for describing effects and consequences.

Tell students that using the passive voice makes sense in this context because no one knows who will damage the underwater cables and who the cables need to be protected from.