

Unit 4 Innovation

4a DIY innovators

Reading improvised inventions

- 1 Read the article about DIY innovators. Then choose the best title for it.

In today's electronic convenience age, many of us imagine that technology is something that brainy scientists in state-of-the-art laboratories create for us. But that isn't really a true reflection of how technology comes about. The strict definition of technology is designing a device to perform a particular task. Seen like that, we are all innovators, because we all at one time or another have improvised our own solutions to specific problems. It's just that some of us take it further than others. America's third president, Thomas Jefferson, filled his home with DIY gadgets. In his living room, for example, he had a homemade clock which, using a pair of cannonballs on ropes, told him both the hour of the day and the day of the week.

While a few DIY innovators in the past **might have been motivated** by money and the dream of making their fortune, others have been motivated by necessity. World War II servicemen in North Africa who **needed to wash** took empty oil drums and hoses, mounted them on scaffolds built from scrap wood, and created improvised showers. Others have been motivated by economic hardship. During the Great Depression of the 1930s, people who couldn't afford new devices **had to resort** to building their own versions.

- a What drives innovation
- b An unidentified need
- c There's an inventor in all of us

- 2 Read the article again and complete these sentences using one word in each space.

- 1 The mistake we make about technology is that we think it is something only _____ can be involved with.
- 2 Thomas Jefferson's clock was unusual for its time because it could tell you the _____.
- 3 Most DIY inventors are not really motivated by _____.
- 4 In the Great Depression, some people created homemade versions of gadgets that they couldn't _____.

Language focus past modals

- 3 Match the past modal verbs (1–6) with the functions (a–f).

- 1 didn't need to hand-sign
- 2 should have come up with
- 3 must have filled
- 4 might have been motivated
- 5 needed to wash
- 6 had to resort

- a expresses what it was advisable to do
- b describes an obligation
- c talks about a necessity
- d talks about a lack of necessity
- e speculates about what was the case
- f speculates about what was the case

- 4 Read the story. Rewrite the underlined phrases with past modal verbs in your notebook.

So there I was on a country road in the middle of nowhere with a flat bicycle tire. ¹ Almost certainly I had ridden over a nail or something. ² The advisable thing would have been to take a puncture repair kit with me, but because the roads are very new around there I had imagined ³ it wasn't necessary. ⁴ One possibility was to wheel my bike back to the nearest town four miles away, but that would have taken hours. Besides, ⁵ I had an obligation to be home later because a friend was coming to dinner. So I decided ⁶ it was my duty to find a way to fix the puncture. (In fact, ⁷ there was no need to worry because the friend had canceled, but I didn't know that at the time.) All I had with me was a bicycle pump. What I needed was a patch for the puncture. I looked around on the road. ⁸ Perhaps someone had dropped something I could use. After some searching, I found some old chewing gum stuck to the road. It was very hard and I realized that there was only one thing to do...

4b Foldable future

Language focus probability

- 1 Complete the statements with these words. In which statement is the probability the strongest?

certainly likely likelihood may should

- I think the _____ of a foldable car catching on with the public is pretty low.
 - I think they'll almost _____ become the norm in the next few years.
 - With foldable laptops the days of broken or shattered screens _____ be over.
 - I think what _____ will determine the success of foldable products is their design.
 - I think we're _____ to see more and more of this kind of solution as energy prices rise.
- 2 Rewrite the sentences in Exercise 1 so that they have the same meaning. Use the words given.

1 _____ (chances)

2 _____ (bound to)

3 _____ (probably)

4 _____ (likely)

5 _____ (may well)

- 3 Complete the answers to these questions about the future of the car using the words given.

- 1 Do you think we'll find a good alternative to gas-driven cars in the near future?

Yes, we _____ (bound).

- 2 What kind of cars will they be, do you think?

I don't know. But _____ (chances / not / be) electric cars.

- 3 Why do you say that?

Because the lithium needed for batteries

_____ (definitely / become) scarcer.

- 4 So what will power cars of the future?

It _____ (likely / be) natural sources: wind or solar or water.

- 5 Do you think that will have a positive effect on pollution?

_____ (should)

- 6 What about the oil companies?

They _____ (unlikely / welcome) such a development.

Idioms partitives

- 4 Look at these partitive expressions. Do they mean some or a small piece or amount?

- 1 I just felt a **drop of rain**. I hope it's not going to pour.

- 2 Just a **dash of milk** in my coffee, please.

- 3 Her house is so clean. There's not a **speck of dust** anywhere.

- 4 I'll just have a **sliver of cake** because I'm on a diet.

- 5 Complete the sentences with these partitives.

dash	glimmer	hint
scrap	shred	stroke

- 1 I wrote a few ideas on a _____ of paper.

- 2 Add a _____ of lemon juice and then stir the mixture well.

- 3 There's not a _____ of truth in his story.

- 4 Did I detect a _____ of regret in your voice?

- 5 I think his idea to make a foldable sofa was a _____ of genius.

- 6 There is now a _____ of hope that I will be able to keep my job after all.

4c The new philanthropists

Reading supporting good causes

- 1 You are going to read about philanthropists. First, read the definition.

Glossary

philanthropist (n) a person who cares about their fellow human beings; especially one who donates money to people less fortunate than themselves

A new generation of Internet and mobile communications billionaires are supporting good causes like never before. Many of these do-gooders are self-made businessmen and women, whereas in the past they were individuals who relied on inherited wealth. Are there other differences between these philanthropists and their 19th-century counterparts?

Yes, there are definitely differences. In the past long-term foundations and scholarships were set up to benefit future generations. Today's philanthropists are actively involved in doing good. "Giving while living" is the slogan for them.

Today's philanthropists are more hands-on; they want to bring about positive change and see the short-term benefits. They often describe their programs in business terms like "getting a good return on capital" and "setting agreed and measurable targets." The money they put into these projects is like seed money—they want to see the projects grow and prosper by themselves, become self-sustaining eventually. That's their ethos.

And there are donations from people who wish to help financially but otherwise do not want to be involved in the projects, as in the past. This is the old-fashioned "no strings attached" giving. But overall there's more emphasis on self-help than with former philanthropists.

- 1 two ways these new philanthropists made their money

- 2 two ways their approach to giving differs from philanthropists in the past

- 2 Are the sentences true (T) or false (F)?

- 1 The speaker implies that philanthropists in the past didn't always work for their money.
- 2 The new philanthropists' attitude to their money is that they want to use it now.
- 3 The new philanthropists want the projects they invest in to be run by people with a business background.
- 4 The speaker suggests that the new philanthropists ultimately care only about their business reputation.

- 3 Match the words in the box with the definitions.

bring about	counterparts	ethos	return
seed	self-confessed	self-made	no strings

- 1 spirit _____
- 2 small investment _____
- 3 profit _____
- 4 make happen _____
- 5 succeeding without help _____
- 6 someone who does the same job in a different time or place _____
- 7 by one's own admission _____
- 8 no conditions _____

Word focus give

- 4 Complete these idioms and make expressions with *give*.

- 1 I gave it my _____, but I didn't win. He was a much better player.
- 2 It's not a decision you can take lightly. You need to give it some serious _____.
- 3 Give her a _____. She's only 12. I didn't know what I wanted to do until I was 20!
- 4 I've never tried to steer a boat before, but I'll give it a _____.
- 5 The council have finally given them the go-_____ to build a new factory on the site.
- 6 Don't rush it. You broke your leg. You need to give it some _____ to heal properly.

4d Solidarity bag

Real life making a short pitch



- 1** Read a pitch for a product called the Solidarity Bag. Then answer the questions.

We have designed a school bag for children. What's so original about that, you ask? Well, this is a bag that also functions as a desk. So you can fold it out and work at it, anytime and anywhere you like. Why would children want to do that, when they have a desk at school and a table at home? Well, simply because not all children do have a desk at school or even a table at home. I'd like you to stop and just think about that for a minute. Our ambition for this school bag is that it will not only be used by children in the US and Europe but also in developing countries. Because that is where it will really come into its own. It has numerous compartments for notebooks, pens, and a water holder. Hydration is very important for concentration. But how will people in poorer countries be able to afford the bag? Well, that's why we call it the Solidarity Bag. Because we're setting the price a little higher here in Europe and the US to help lower the cost of a bag for a family in a developing country. So when you

pay a higher price for the bag here, you are helping to bring the price down to an affordable level elsewhere, showing solidarity with families less fortunate than you.

- 1 Who is the product aimed at?

- 2 What problem does it solve?

- 3 What features does the bag have?

- 4 What is unique about this idea?

- 2** Read the pitch again and underline three rhetorical questions.

- 1 What's _____ about that, you _____ ?

- 2 Why _____ children _____ to do _____, when they have a desk at school and a table at home?

- 3 But _____ will _____ in poorer countries _____ to afford the bag?

- 3** Answer the questions you underlined in Exercise 2.

- 1 _____
2 _____
3 _____

- 4** Complete these other rhetorical questions you might ask when pitching a new product or service.

- 1 Operation
So how _____ ?

- 2 Cost
Isn't _____, you ask?

- 3 Need
So why _____ ?

- 4 Ambition/Goal
So, what _____ ?

Wordbuilding past participles as adjectives

- 1 Complete the sentences with past participle adjectives formed from these verbs.

boil	burn	forecast	forget	infect
know	mow	prove	shave	spill
			use	

- The _____ storm never arrived.
- He is a _____ criminal who has been wanted by the police for years.
- I love the smell of freshly _____ grass.
- You know what they say: It's no use crying over _____ milk. What's done is done.
- My breakfast at the hotel was terrible. It consisted of two cold _____ eggs and a piece of _____ toast.
- All the men in the tribe have _____ heads.
- It's a _____ town. No one ever visits it and most of the population has left to go and live in the neighboring city.
- All the _____ trees had to be cut down in case the disease spread.
- People think starfish have no eyes, because they don't have faces. But it's a _____ fact that they can see through eye spots on each arm.
- I can't afford a new car; I'm going to buy a _____ one.

Learning skills vocabulary extension (1)

- 2 You can use your dictionary to extend your vocabulary. If you see a word that you think you know but the meaning does not seem to fit, check the other meanings of this word in the dictionary. Look at this example.

- You see this sentence but don't know this meaning of *capital*.
"Running a railroad network is a very capital-intensive activity."
- You find these entries for *capital* in the dictionary. Which meaning does it have in this sentence?

capital noun

- 1 the administrative center of a country or region
- 2 money or assets that are or can be invested

capital adjective

- 3 (of a letter of the alphabet) large
- 4 (of punishment or crime) punishable by death

- 3 Note any new meanings in your notebook and write an example sentence for each one.

- 3 Look at these words with more than one meaning. What meanings do you know for each?

crane	fair	fine	sole
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- 4 Read the sentences. Do you know the meanings of the words in bold in these sentences? Check other meanings in the dictionary. Write example sentences for the meanings that are new to you.

- In Japan the most popular origami shape is a paper **crane**.
- I went to the Frankfurt book **fair** last week.
- There's a **fine** line between confidence and arrogance.
- It's not a company: he is a **sole** trader.

Check!

- 5 Answer these questions. All the answers are in Student Book Unit 4.

- What is the mother of invention? _____
- How do we finish the expression?
"There's no need to reinvent the _____."
- What is the ancient Japanese art of paper folding called? _____
- What is the missing word in this definition of social entrepreneurship?
"A business that hopes to generate _____, while solving social or environmental problems."
- How does this advice to public speakers end?
"Be sincere, be brief, be _____."

- 6 Complete the sentences.

- There's not a _____ of evidence to support this idea.
- There was a _____ of disappointment in his voice.
- He's come up _____ a great idea for recycling old tires.
- Parentheses or dashes are used to give _____ information in a sentence.
- Blake Mycoskie is an American social _____.
- The invention of the telephone was a real _____ in telecommunications.