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# 本書の構成と使い方

各 Unit は Step 01 ～ 08 で構成されています。それぞれの Step の目的と使い方を説明します。

## Step 01

本文を読む前に、知っておいてほしいこと、考えてほしいことを取り上げています。インターネットで調べたり、ペアで話し合みましょう。本文の理解を深めるために、英語を使って積極的に取り組んでみてください。

## Step 02

様々なトピックの本文（約 350 語）を読みましょう。読み始めの時刻と読み終わりの時刻を記入し、自分のタイムを計測してみてください。7 分で読めば約 50 wpm、3 分 30 秒で読めば約 100 wpm となります。

※ wpm は words per minutes の略

## Notes

読解のヒントとして、難しい語句には日本語の訳例をつけてあります。必要に応じて参照してください。

## Step 03

本文の要約文を完成させる問題です。空欄に指定されている文字で始まる語句を記入して、要約文を完成させましょう。Step 07 の準備練習にもなります。

## Step 04

本文について、それぞれ異なった意見を持つ 4 人のキャラクターの発言を比較して、本文を最もよく理解をしているキャラクター 1 人を選びましょう。選ばなかったキャラクターの意見についても、どこが本文と違うかを考えてみましょう。



What kind of position is required in this passage?

**Author** Many authors can't feel enough about what's right. They often care about rights.

**Reader** Many human rights are getting into the world. It's dangerous if they make mistakes while making good decisions.

**Author** No, author's total right must have almost reached the point 25 years.

**Reader** The passage says that author's right is difficult to get into the world. It's difficult to get into the world.

According to this passage, is it possible to eliminate human rights?

**Author** No. The author of this passage thinks we must eliminate rights because there is no perfect world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

**Author** Thank to new technology, it is possible to get into the world. If we have a lot of money to develop the world, we can get into the world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

## Step 05

本文中の語句を取り上げ、それがどのような場面で使われているか思い出して、ペアで話し合ってみましょう。英語の表現を理解して使えるようになるためには、この「思い出す」という過程が不可欠です。本文を見返さずに自分なりに思い出して、自由にペアで話し合ってみましょう。前後の文脈を思い出すことで英単語の知識も定着していきます。

What's the main idea?

**Author** The author of this passage thinks we must eliminate rights because there is no perfect world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

**Author** Thank to new technology, it is possible to get into the world. If we have a lot of money to develop the world, we can get into the world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

What's the main idea?

**Author** The author of this passage thinks we must eliminate rights because there is no perfect world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

**Author** Thank to new technology, it is possible to get into the world. If we have a lot of money to develop the world, we can get into the world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

## Step 06

本文中の5つの語句を取り上げています。それぞれの語句を含む文全体に下線を引いて、それぞれの語句がどのような意味で使われているか考えてみましょう。Step 07とも関連してきます。

## Step 07

本文の要約文を書いて、グループで発表しましょう。難しい場合は、Step 06 で下線を引いた文の表現を使って書いてみてください。

What's the main idea?

**Author** The author of this passage thinks we must eliminate rights because there is no perfect world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

**Author** Thank to new technology, it is possible to get into the world. If we have a lot of money to develop the world, we can get into the world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

What's the main idea?

**Author** The author of this passage thinks we must eliminate rights because there is no perfect world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

**Author** Thank to new technology, it is possible to get into the world. If we have a lot of money to develop the world, we can get into the world.

**Reader** Yes. It's not that good and rights would be lost. That would be an even greater problem.

## Step 08

本文の内容について、4人のキャラクターの意見を読んで自分の考えと比べてみてください。次にペアやグループで話し合い、最後に自分の考えをまとめてみましょう。これまでの活動を通じて、あなたの考えは深まっているはずです。



# Who's Flying the Plane?



## Step 01

次の質問について、ペアで話し合ってみましょう。インターネットで調べ物をする場合は、できるだけ英語で検索してみましょう。

**Q1**

あなたは飛行機に搭乗したことがありますか？

**Q2**

未来（たとえば 30 年後）の飛行機には、どのような機能が備わっていると思いますか？





## Who's Flying the Plane?

読み始めの時刻

時 分 秒ごろ

- 1 Next time you step onto an airplane, try looking over to your left and peeking into the cockpit. To an ordinary passenger, the many dials, knobs, switches, lights and screens are fascinating and bewildering. Their complexity is a reminder that, as passengers, we are placing our lives in the hands of a highly advanced machine, and a well-trained pilot with many thousands of hours of flying experience.
- 2 And yet, today's pilots actually do very little of what we think of as "flying" the airplane. Autopilot systems can now handle most ordinary piloting work, including takeoffs and landings. Self-driving cars, trucks and buses have yet to become common on the streets, but up in the sky, today's airliners are largely self-flying.
- 10 Surveys of airline pilots show that on a typical flight, a human pilot only spends a few minutes in full control of the airplane.
- 3 This has led some airlines to question whether they really need pilots. Flight crews represent about 10% to 15% of an airline's total costs. Eliminating them could reduce the cost of travel for everyone, and help struggling airlines survive.
- 15 Also, there simply aren't enough well-trained pilots around the world. Over the past 30 years the number of airline pilots has decreased by 30%. Many airlines often have to cancel flights because they can't find enough experienced pilots.
- 4 Still, consumer surveys show that few passengers would feel safe with no human pilot. They understand that even if automated systems can fly safely under normal conditions, they are not good at handling surprises. Humans get tired, forget things and make mistakes. But when a rare, sudden crisis happens, only a well-trained, experienced human pilot can make the kind of quick inferences and decisions that save lives. This is why every suggestion of eliminating pilots has been stopped by laws and public opinion.
- 20 normal conditions, they are not good at handling surprises. Humans get tired, forget things and make mistakes. But when a rare, sudden crisis happens, only a well-trained, experienced human pilot can make the kind of quick inferences and decisions that save lives. This is why every suggestion of eliminating pilots has been stopped by laws and public opinion.
- 25 5 But autopilot and remote-control systems are always improving, and public opinion can change. The day may come when you step onto a plane, look to your left, and see ... nothing. Will you feel comfortable getting on that plane?

読み終わりの時刻

時 分 秒ごろ

## Notes

peek ~をのぞき見る cockpit 操縦室 dial ダイヤル knob つまみ fascinating 魅惑的な bewildering 途方に暮れるほど複雑な reminder 思い出させてくれるもの autopilot オートパイロット (自動操縦装置) takeoff 離陸  
 airliner 航空機 automated 自動化された inference 推理

Step  
03

次の英文の要約を完成させましょう。指定されている文字から始まる語句を考えて、文章中の空欄に記入してください。

Today's airliners are largely self-flying and some people may wonder if we really need pilots. If we ① ( e ) human pilots, the cost of traveling could be 10% to 15% lower. However, we may not feel ② ( s ) with such an airliner because we have a sense that an airplane is handled by a well-trained pilot who can use the highly ③ ( a ) machine. When an unexpected ④ ( c ) happens suddenly, only an experienced human pilot can make a quick decision about what to do. If ⑤ ( a ) and remote-control systems become able to do that, the day may come when we step onto a plane without a human pilot.

Step  
04

英文の内容に関する質問に、4人が答えています。英文を最もよく理解しているキャラクターを選びましょう。

Q1

According to this passage, what can automated systems do?



Ariel



Artificial intelligence, or AI, can answer some difficult questions on the pilot license test.

Automated systems can drive cars, trucks, and buses and even handle planes' takeoffs and landings.

Noel



Jody



Autopilot and remote-control systems can fly safely even if unexpected engine problems happen.

The systems can support human pilots and crews when they get too tired and start making mistakes.

Tracy



Q2

What kind of problem is explained in this passage?



Ariel



Many airlines can't find enough pilots who have sufficient flight experience. They often cancel flights.

Noel



Many human pilots are getting too old. It could be dangerous if they make mistakes while making quick decisions.

Jody



An airline's total flight costs have almost doubled over the past 30 years.

Tracy



Few passengers feel safe with no human pilot, which makes it difficult to promote the self-flying systems.



Q3

According to this passage, is it possible to eliminate human pilots?



Ariel



No. The author of this passage thinks we mustn't eliminate pilots because there is no perfect autopilot.

Noel



Thanks to new technology, it is technically possible if we have a lot of money to develop the perfect autopilot.

Jody



No. If we do that, pilots and flight crews would lose their jobs. That would be an even greater problem.

Tracy



For now, every suggestion of eliminating pilots has been stopped by laws and public opinion.



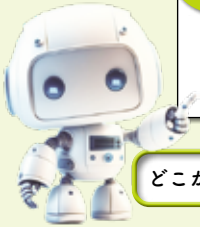


Step  
05

英文のなかで、次の語句はどのような場面で使われていましたか。それぞれの語句が含まれていた文（または段落）の内容をできるだけ思い出して、ペアで自由に話してみましょう。

Q1

to your left  
(あなたから見て左に)



どこから何を見ているのでしょうか？

Q2

cancel  
(取りやめる)



欠航の意外な原因は…

Step  
06

英文をもう一度読みながら、次の語句①～⑤が使われている文を探してください。それぞれの語句を含む文全体に下線を引き、文中での語句の意味を空欄に書きましょう。

- ① actually (                      )    ② landing (                      )    ③ decrease (                      )  
④ condition (                      )    ⑤ comfortable (                      )

Step  
07

英文の要点を英語で書いてみましょう。書き終わったら、グループで要約を発表し合いましょう。

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Step 6 で下線を引いた文の表現を使ってみましょう。

慣れてきたら、英文を見返さずにチャレンジしてください。



## Step 08

英文の概要を理解した4人が話し合いを始めました。あなた自身の考えと比べてみましょう。



Ariel

As the author mentions, flight technologies are always improving. In 30 years, the situation will change. There will be airplanes without any human pilot or crew. That'll be nice!

Do you really think so? Traveling in the air is fundamentally different from traveling on the earth. If an accident happens during flights, it is almost impossible for people on land to rescue the passengers.



Jody



Noel

Hmm... It's not only a matter of safety. You step onto a plane, say hello to flight attendants, take a seat, and listen to the greeting by the pilot on board. These are all essential to your flight experience.

So, Jody and Noel are not really in favor of airliners with no human pilot, right? But I would say that we should accept the change. Many problems like flight cancelations should be solved as soon as possible.



Tracy

あなたもペアやグループで話し合いをしてみましょう。また、最終的な自分の考えを書いてまとめましょう。