

Dynamic Listening Comprehension Unit 2 Chapter 1 (Video #3)

The Internet

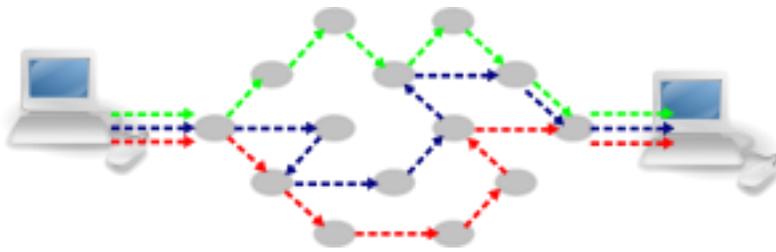
The Internet consists of millions of computers, all linked together into a gigantic network. Now, every computer that is connected to the internet is part of this network and can communicate with any other connected computer. In order to communicate with each other, these computers are equipped with special communication software.

To connect to the Internet, the user instructs the computer's communication software to contact the Internet Service Provider, or ISP. Now, an Internet Service Provider, or ISP, is a company that provides Internet service to individuals, organizations, or companies, usually for a monthly charge. Local ISPs connect to larger ISPs, which in turn connect to even larger ISPs. A hierarchy of networks is formed, and this hierarchy is something like a pyramid with lots of small networks at the bottom, and fewer but larger networks moving up the pyramid. But amazingly, there is no one single controlling network at the top. Instead, there are dozens of high-level networks which agree to connect with each other. It is through this process that everyone on the Internet is able to connect with everyone else on the Internet no matter where he or she is in the world.

How does information that leaves one computer travel through all these networks and arrive at its destination--another computer—in a fraction of a second? The process depends on routers. Now, routers are specialized computers whose job it is to direct the information through the networks. The data, or information, in an e-mail message, a web page, or a file is first broken down into tiny packets, and each of these packets has the address of the sender and the receiver, and information on how to put the packets back together. Each of these packets is then sent off through the Internet, and when a packet reaches a router, the router reads its destination address, and the router then decides the best route to send the packet on its way to its destination. All the packets might take the same route or they might go different routes. Finally, when all the packets reach their destination, they are put back into the correct order.

To help you understand this process, I'm going to ask you to think about these packets of information as electronic postcards. Now, imagine that you want to send a friend a book, but you can send it only as postcards. First, you would have to cut up each of the pages of the book to the size of the postcards. Next, you would need to write your address and the address of your friend on each of these postcards. You would also need to number the postcards so that your friend could put them in the correct order after he receives the postcards. After completing these steps, you would put all the postcards in the mail. You would have no way to know how each postcard traveled to reach your friend. Some might go by truck, some by train, some by plane, some by boat. Some might go by all four ways. Now, along the way, many postal agents may look at the addresses on the postcards in order to decide the best route to send them off on to reach their destination. The postcards would probably arrive at different times, but finally, after all the postcards had arrived, your friend would be able to put them back in the correct order and read the book.

Now, this is the same way that information is sent over the Internet using the network of routers, but of course it happens much, much faster.



Vocabulary

equip (v.) to give equipment

equipment (n.) The equipment for playing baseball is glove, ball, bat, helmet

hierarchy : a top-down structure, usually a social structure, or the organization of a group. For example, in a company, there is a president, managers, workers, assistants

“it happens very fast, in a **fraction of a second.**” For example, 1/10th of a second, 1/3rd of a second

router: a device that processes internet signals

destination: the place that you want to go to

put the cards in **the correct order**—for example, from 1 to 10

Dynamic Listening Comprehension
The Internet Error Correction

Unit 2 Chapter 1 (Video #3)

Types of errors: articles (*a, an, the*), verb tense, verb forms, active or passive voice, singular/plural. These types of errors are the ones that students make most commonly in their writing and speaking.

Try to find all the errors by reading, then listen to the lecture again and try to hear the differences between what the speaker says and what is written in this text that needs to be corrected. There is one error in each sentence.

1. The Internet consists of millions of computers, all linked together into gigantic network.
2. Now, every computer that is connect to the internet is part of this network and can communicate with any other connected computer.
3. In order to communicate with each other, these computer are equipped with special communication software.
4. To connect to the Internet, user instructs the computer's communication software to contact the Internet Service Provider, or ISP.
5. Now, an Internet Service Provider, or ISP, is a company that provides Internet service to individuals, organizations, or company, usually for a monthly charge.
6. Local ISPs connecting to larger ISPs, which in turn connect to even larger ISPs.
7. A hierarchy of networks is form, and this hierarchy is something like a pyramid with lots of small networks at the bottom, and fewer but larger networks moving up the pyramid.
8. But amazingly, there is no one single controlling network at top.
9. Instead, there are dozens of high-level network which agree to connect with each other.
10. It is through this process that everyone on the Internet are able to connect with everyone else on the Internet no matter where he or she is in the world.
11. How does information that leaves one computers travel through all these networks and arrive at its destination--another computer--in a fraction of a second?
12. Process depends on routers.
13. Now, routers are specialized computers whose job it is to direct the informations through the networks.
14. The data, or information, in e-mail message, a web page, or a file is first broken down into tiny packets, and each of these packet has the address of the sender and the receiver, and information on how to put the packets back together.

15. Each of these packets is then send off through the Internet, and when a packet reaches a router, the router reads its destination address, and the router then decides the best route to send the packet on its way to its destination.
16. All the packets might take same route or they might go different routes.
17. Finally, when all the packet reach their destination, they are put back into the correct order.
18. To help you understand this process, I'm going to asking you to think about these packets of information as electronic postcards.
19. Now, imagine that you want to send friend a book, but you can send it only as postcards.
20. First, you would have to cut up each of the page of the book to the size of the postcards.
21. Next, you would need to write your address and the address of your friend on each of these postcard.
22. You would also need to number the postcards so that your friend could put them in the correct order after he will receive the postcards.
23. After completing these steps, you will put all the postcards in the mail.
24. You would have no way to known how each postcard traveled to reach your friend.
25. Some might gone by truck, some by train, some by plane, some by boat.
26. Some might go by all four way.
27. Now, along way, many postal agents may look at the addresses on the postcards in order to decide the best route to send them off on to reach their destination.
28. The postcards would probably arrive at different times, but finally, after all the postcards had arrive, your friend would be able to put them back in the correct order and read the book.
29. Now, this is the same way that information is sending over the Internet using the network of routers, but of course it happens much, much faster.

Dynamic Listening Comprehension Unit 2 Chapter 1 (Video #3)

The Internet **Error Correction, Errors Indicated**

1. The Internet consists of millions of computers, all linked together into **a** gigantic network.
2. Now, every computer that is **connected** to the internet is part of this network and can communicate with any other connected computer.
3. In order to communicate with each other, these **computers** are equipped with special communication software.
4. To connect to the Internet, **the** user instructs the computer's communication software to contact the Internet Service Provider, or ISP.
5. Now, an Internet Service Provider, or ISP, is a company that provides Internet service to individuals, organizations, or **companies**, usually for a monthly charge.
6. Local ISPs **connecting** to larger ISPs, which in turn connect to even larger ISPs.
7. A hierarchy of networks is **formed**, and this hierarchy is something like a pyramid with lots of small networks at the bottom, and fewer but larger networks moving up the pyramid.
8. But amazingly, there is no one single controlling network at **the** top.
9. Instead, there are dozens of high-level **networks** which agree to connect with each other.
10. It is through this process that everyone on the Internet **is are** able to connect with everyone else on the Internet no matter where he or she is in the world.
11. How does information that leaves one **computer computers** travel through all these networks and arrive at its destination—another computer—in a fraction of a second?
12. **The** process depends on routers.
13. Now, routers are specialized computers whose job it is to direct the **information informations** through the networks.
14. The data, or information, in **an** e-mail message, a web page, or a file is first broken down into tiny packets, and each of these packets has the address of the sender and the receiver, and information on how to put the packets back together.

15. Each of these packets is then ~~sent send~~ off through the Internet, and when a packet reaches a router, the router reads its destination address, and the router then decides the best route to send the packet on its way to its destination.
16. All the packets might take ~~the~~ same route or they might go different routes.
17. Finally, when all the packets reach their destination, they are put back into the correct order.
18. To help you understand this process, I'm going to ask~~ing~~ you to think about these packets of information as electronic postcards.
19. Now, imagine that you want to send ~~a~~ friend a book, but you can send it only as postcards.
20. First, you would have to cut up each of the pages of the book to the size of the postcards.
21. Next, you would need to write your address and the address of your friend on each of these postcards.
22. You would also need to number the postcards so that your friend could put them in the correct order after he ~~will receive~~ receives the postcards.
23. After completing these steps, you ~~will would~~ put all the postcards in the mail.
24. You would have no way to ~~know known~~ how each postcard traveled to reach your friend.
25. Some might ~~go gone~~ by truck, some by train, some by plane, some by boat.
26. Some might go by all four ways.
27. Now, along ~~the~~ way, many postal agents may look at the addresses on the postcards in order to decide the best route to send them off on to reach their destination.
28. The postcards would probably arrive at different times, but finally, after all the postcards had arrived, your friend would be able to put them back in the correct order and read the book.
29. Now, this is the same way that information is ~~sent sending~~ over the Internet using the network of routers, but of course it happens much, much faster.

Dynamic Listening Comprehension

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The Internet

Stressed Syllables are underlined. One-syllable stressed words are also underlined

1. The In/ter/net con/sists of mill/ions of com/pu/ters, all linked to/ge/ther in/to a gi/gan/tic net/work.
2. Now, e/ver/y com/pu/ter that is co/nnect/ed to the In/ter/net is part of this net/work and can co/mmu/ni/cate with a/ny o/ther co/nnect/ed com/pu/ter.
3. In or/der to co/mmu/ni/cate with each o/ther, these com/pu/ters are e/quipped with spe/cial co/mmu/ni/ca/tion soft/ware.
4. To co/nnect to the In/ter/net, the u/ser in/structs the com/pu/ter's co/mmu/ni/ca/tion soft/ware to con/tact the In/ter/net Ser/vi/ce Pro/vi/der, or ISP.
5. Now, an In/ter/net Ser/vi/ce Pro/vi/der, or ISP, is a com/pa/ny that pro/vides In/ter/net ser/vi/ce to in/di/vi/du/als, or/ga/ni/za/tions, or com/pa/nies, u/su/al/ly for a month/ly charge.
6. Lo/cal ISPs co/nnect to lar/ger ISPs, which in turn co/nnect to e/ven lar/ger ISPs.
7. A hi/er/ar/chy of net/works is formed, and this hi/er/ar/chy is some/thing like a pyr/a/mid with lots of small net/works at the bo/ttom, and few/er but lar/ger net/works mo/ving up the pyr/a/mid.
8. But a/ma/zing/ly, there is no one sin/gle con/trol/ling net/work at the top.
9. In/stead, there are do/zens of high-le/vel net/works which a/gree to co/nnect with each o/ther.
10. It is through this pro/cess that e/ver/y/one on the In/ter/net is a/ble to co/nnect with e/ver/y/one else on the In/ter/net no ma/tter where he or she is in the world.
11. How does in/for/ma/tion that leaves one com/pu/ter travel through all these net/works and a/rrive at its des/ti/na/tion—a/no/ther com/pu/ter—in a frac/tion of a se/cond?
12. The pro/cess de/pends on rou/ters.
13. Now, rou/ters are spe/cial/ized com/pu/ters whose job it is to di/rect the in/for/ma/tion through the net/works.
14. The da/ta, or in/for/ma/tion, in an e/mail me/ssage, a web page, or a file is first bro/ken down in/to ti/ny pa/ckets, and each of these pa/ckets has the ad/dress of the sen/der and the re/cei/ver, and in/for/ma/tion on how to put the pa/ckets back to/ge/ther.

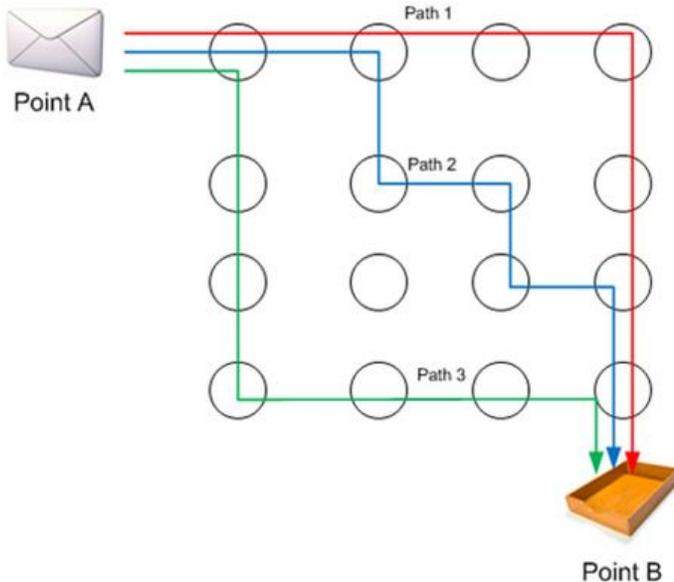
15. Each of these pa/ckets is then sent off through the In/ter/net, and when a pa/cket rea/ches a rou/ter, the rou/ter reads its des/ti/na/tion ad/dress, and the rou/ter then de/cides the best route to send the pa/cket on its way to its des/ti/na/tion.
16. All the pa/ckets might take same route or they might go di/ffer/ent routes.
17. Fi/na/lly, when all the pa/ckets reach their des/ti/na/tion, they are put back in/to the co/rrect or/der.
18. To help you un/der/stand this pro/cess, I'm go/ing to ask you to think a/bout these pa/ckets of in/for/ma/tion as e/lec/tro/nic post/cards.
19. Now, i/ma/gine that you want to send a friend a book, but you can send it on/ly as post/cards.
20. First, you would have to cut up each of the pa/ges of the book to the size of the post/cards.
21. Next, you would need to write your ad/dress and the ad/dress of your friend on each of these post/cards.
22. You would al/so need to num/ber the post/cards so that your friend could put them in the co/rrect or/der af/ter he re/ceives the post/cards.
23. Af/ter com/ple/ting these steps, you would put all the post/cards in the mail.
24. You would have no way to know how each post/card tra/veled to reach your friend.
25. Some might go by truck, some by train, some by plane, some by boat.
26. Some might go by all four ways.
27. Now, a/long the way, ma/ny pos/tal a/gents may look at the ad/dress/es on the post/cards in or/der to de/cide the best route to send them off on to reach their des/ti/na/tion.
28. The post/cards would pro/ba/bly a/rrive at di/ffer/ent times, but fi/na/lly, af/ter all the post/cards had a/rrived, your friend would be a/ble to put them back in the co/rrect or/der and read the book.
29. Now, this is the same way that in/for/ma/tion is sent over the In/ter/net u/sing the net/work of rou/ters, but of course it ha/ppens much, much fas/ter.

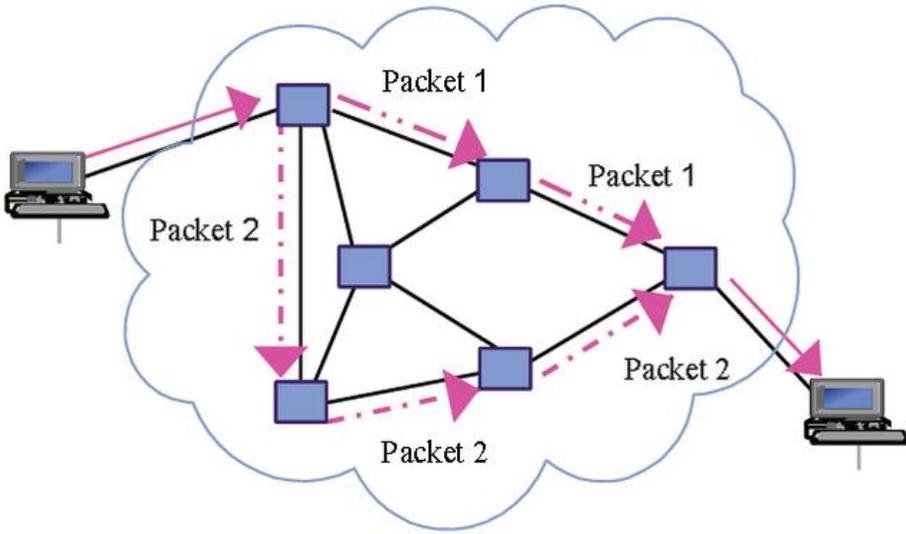
Analogy

The bold font shows stressed syllables and stressed one-syllable words. The hyphens show consonant-vowel linking between words.

This teacher uses an-analogy to explain how the internet works. An-analogy is-a comparison-of something-unfamiliar with something familiar, or something-ab-stract with something concrete. It-is like-a bridge to understanding new information. Computer scientists use many analogies to “real world” things to explain how computers work. Software that gives you trouble is-a “virus”. Information-is stored-in “folders”. You see what-is-in your computer through a “window”.

The teacher-in the video says-sending an-email-is like sending-a book to a friend by postal mail, but each page-is sent-individually, and-each page may travel by different routes-and different means-of transportation. The receiver has to gather-all the pages-and put them-in the correct-order. In the same way, an-email-is sent-as many individual packets-of data. Software programs put the packets-in the correct-order, so the receiver doesn't see any of these individual packets.





Dictation 2:28~

To (1)_____ process, I'm going to ask you to think about (2)_____ postcards. Now, imagine that (3)_____ book, but you can send it only as postcards. First, you would have to (4)_____ to the size of the postcards. Next, you would need to (5)_____ on each of these postcards. You would also need to (6)_____ could put them in the correct order after he receives the postcards. After completing these steps, you would (7)_____. You would have no way to know (8)_____ friend. Some might go by truck, some by train, (9)_____.

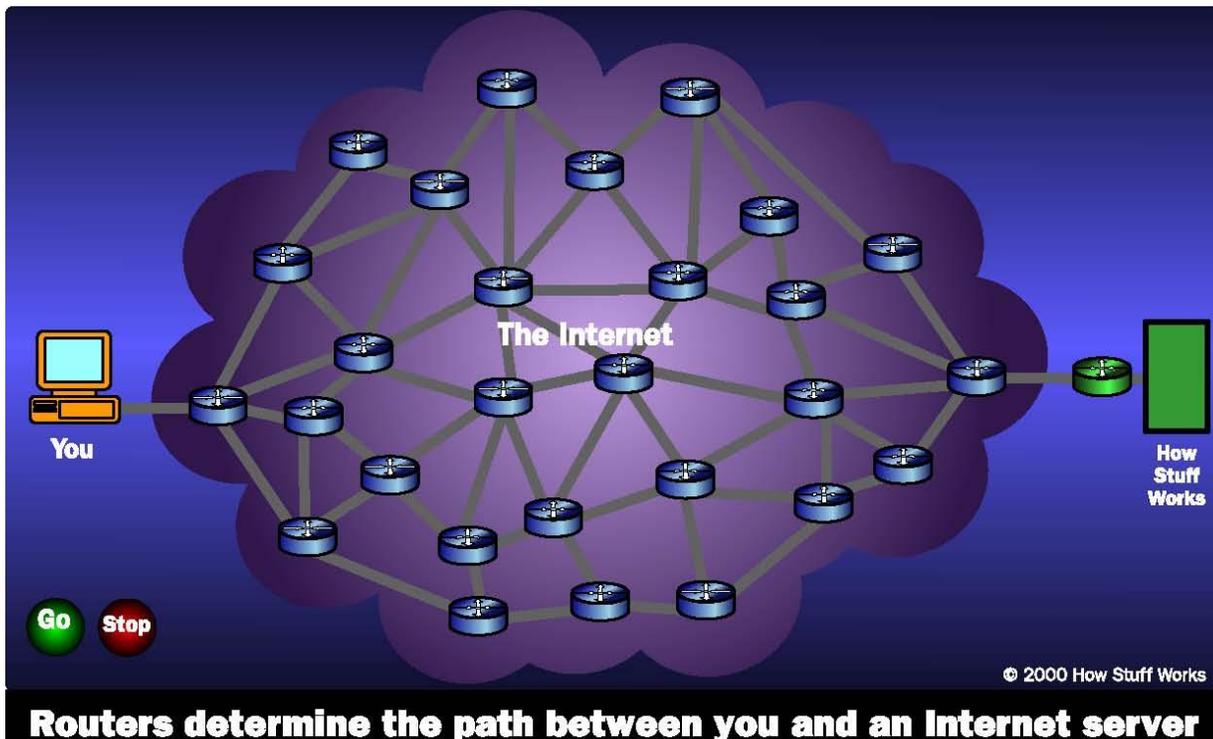
Some might go by all four ways. Now, along the way many postal agents (10)_____ in order to decide the best route to send them off on (11)_____. The postcards would probably (12)_____, but finally, after all the postcards had arrived, (13)_____ to put them back in the correct order (14)_____.

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To (1)_____ process, I'm going to ask you to think about (2)_____ postcards. Now, imagine that (3)_____ book, but you can send it only as postcards. First, you would have to (4)_____ to the size of the postcards. Next, you would need to (5)_____ on each of these postcards. You would also need to (6)_____ could put them in the correct order after he receives the postcards. After completing these steps, you would (7)_____. You would have no way to know (8)_____ friend. Some might go by truck, some by train, (9)_____.

Some might go by all four ways. Now, along the way many postal agents (10)_____ in order to decide the best route to send them off on (11)_____. The postcards would probably (12)_____, but finally, after all the postcards had arrived, (13)_____ to put them back in the correct order (14)_____.

To (1) **help you understand this** process, I'm going to ask you to think about (2) **these packets of information as electronic** postcards. Now, imagine that (3) **you want to send a friend a** book, but you can send it only as postcards. First, you would have to (4) **cut up each of the pages of the book** to the size of the postcards. Next, you would need to (5) **write your address and the address of your friend** on each of these postcards. You would also need to (6) **number the postcards so that your friend** could put them in the correct order after he receives the postcards. After completing these steps, you would (7) **put all the postcards in the mail**. You would have no way to know (8) **how each postcard traveled to reach your** friend. Some might go by truck, some by train, (9) **some by plane, some by boat**. Some might go by all four ways. Now, along the way many postal agents (10) **may look at the addresses on the postcards** in order to decide the best route to send them off on (11) **to reach their destination**. The postcards would probably (12) **arrive at different times**, but finally, after all the postcards had arrived, (13) **your friend would be able** to put them back in the correct order (14) **and read the book**.



Analogy: Sending an email is like sending the individual pages of a book in the postal mail:

1. imagine: send book friend
2. send each page individually
3. address on each page
4. each page in post box
5. pages – different routes, different ways
6. friend receives pages
7. page numbers
8. friend—correct order
9. email similar
10. packets of data
11. same address
12. software packets in correct order
13. email faster

SAMPLE ANSWER

Imagine that you had to send a book to your friend, but you had to send each page individually. You would have to put your friend's address and your return address on each page. Then you would put each page in the post box. Each page would go by different routes and different ways, but your friend would receive all the pages. He would see the page numbers and put the pages in the correct order. Email goes through the internet by a similar process. Email messages are broken into packages of data, and each packet goes to the same address. Software in a router puts the packets in the correct order so that the receiver can get the message. It happens just like those pages of a book going through the postal mail, but it happens much faster.