A1 Draft

# 1. What is the Internet?

Jarryd tells us that ***"The internet is essentially and basically, a vast and interconnected network of computers [...]  At the core, it's a "network of networks""***

Perfect - This is the important part here. The internet is not just lots of computers connected together, but lots of networks.

Dallas tells us that the two types of network commonly found on the internet are:

***"1. client/server networks - the client network (your computer) requests information from the server network (who provides the info back to you)***

***2. Peer to peer networks - all nodes (computers) are equal who can operate as both the client and server."***

Jarryd goes on to note that these networks ***" communicate with each other over various forms of both physical and wireless infrastructure, this includes cables, phones lines, power liines, radio and even satellite links."***

Furthermore,***"Data on the internet is transferred in small pieces called packets, guided by protocols like IP (Internet Protocol) and TCP (Transmission Control Protocol)."***

Dallas explains that***"IP directs the information to the correct place using the IP address. TCP deconstructs the data into the packets then reassembles the data at the end"***and that this process is referred to as ***"Packets witching"***

Finally Jarryd explain that ***"The Domain Name System (DNS) helps by translating human-readable website names ("example.com") into a numerical IP address so the request knows where to go. "***

**Jarryd Simpfendorfer**

**RE: What is the Internet? (Workshop)**

[**Collapse**](https://lms.curtin.edu.au/webapps/discussionboard/do/message?action=list_messages&course_id=_144602_1&nav=discussion_board_entry&conf_id=_1299347_1&forum_id=_2134478_1&message_id=_12866541_1)

Top of Form

The internet is essentially and basically, a vast and interconnected network of computers and devices which communicate with each other over various forms of both physical and wireless infrastructure, this includes cables, phones lines, power liines, radio and even satellite links. At the core, it's a "network of networks", where individual machines, user devices and servers are connected to form the global communication system.  
  
When a user requests information onlines, their computer connects to a server, often through intermediate routers and networks. Servers, which can either be privately or publicly owned (like servers at universities), tend to form the backbone of this network by linking to multiple of other servers. The interconnected structure then allows data to flow across the globe as efficiently as possible.  
  
Data on the internet is transferred in small pieces called packets, guided by protocols like IP (Internet Protocol) and TCP (Transmission Control Protocol). The Domain Name System (DNS) helps by translating human-readable website names ("example.com") into a numerical IP address so the request knows where to go. These packets may not take the most direct route available, but instead navigate dynamically through the network, avoiding congestion or technical issues. Once the server processes the request, it then sends a response back to the user's device in a similar manner.

**RE: What is the Internet? (Workshop)**

[**Collapse**](https://lms.curtin.edu.au/webapps/discussionboard/do/message?action=list_messages&course_id=_144602_1&nav=discussion_board_entry&conf_id=_1299347_1&forum_id=_2134478_1&message_id=_12866541_1)

Top of Form

Hi Jarryd,

Thanks so much for getting the workshop going here.

Everything you have written here is accurate, but I'm going to pull out the key points we are looking for and add them to a working answer in the top post. so, here goes:

***"The internet is essentially and basically, a vast and interconnected network of computers [...]  At the core, it's a "network of networks""***

Perfect - This is the important part here. The internet is not just lots of computers connected together, but lots of networks.

**What two forms do these networks commonly take?**

***"which communicate with each other over various forms of both physical and wireless infrastructure, this includes cables, phones lines, power liines, radio and even satellite links."***

Great!

***"Data on the internet is transferred in small pieces called packets, guided by protocols like IP (Internet Protocol) and TCP (Transmission Control Protocol)."***

Yes - **What do these two protocols do and what is this process called?**

***"The Domain Name System (DNS) helps by translating human-readable website names ("example.com") into a numerical IP address so the request knows where to go. "***

Great - Though note that it also works the other way, converting IP addresses into human-readable form.

Thank you for this Jarryd - You've hit a good number of the key points we are looking for with just a few small details missing. Great work!

Cheers

Stew

Bottom of Form

Hi Amit,

You've touched upon some relevant points here - Have a look at the working answer in the top post to see if there's anything more you can contribute to our answer.

*"Users access it using ISPs and web browsers to view diverse content on websites."*

While this is correct, it's important to note that web browsers and web sites are a part of the world wide web, which we access via the internet, but which is a separate entity as we'll be discussing next week.

Bottom of Form

# 2. What is the World Wide Web?

So Jarryd gets us off to a roaring start by explaining that ***"The World Wide Web (WWW) refers to a body of information, which is an abstract space of knowledge."***

***"It is a system of interconnected documents and multimedia content that is accessible over the internet. "***

*" It lets users navigate and interact with specific information* ***using web browsers via hyperlinks and URLs***"

***"Hypertext is a system of text which is interconnected through hyperlinks which allows users to navigate between varying pieces of information non-linearly"***

***"URL stands for Uniform Resource Locator (URL). It is the address that is used to locate a specific resource on the internet like a webpage"***

Jarryd goes on to note that the web***"operates on technology such as HTML (HyperText Markup Language), "***which***"is the standard language which is used to both create and structure content on the web"***

***"HTTP (HyperText Transfer Protocol)" which is "a protocol used to transfer data between a users browser and a web server""***

*"****and web servers"****which "****have multiple roles, this includes storing, managing and delivering website content to users"***

Indeed, though here the main thing we are looking for is that web servers are where web documents are stored.

**What does URL stand for? What is it?**   
URL stands for Uniform Resource Locator (URL). It is the address that is used to locate a specific resource on the internet like a webpage, or file. E.g. https://www.example.com.  
  
**How would you describe the nature of hypertext broadly?**   
Hpertext is a system of text which is interconnected throuugh hyperlinks which allows users to navigate between varying pieces of information non-linearly. It underlines the structure of the web and enables the seamless linking of documents and other resources.  
  
**What is the function of HTML?**   
HyperText Markup Language (HTML) is the standard language which is used to both create and structure content on the web. It defines elements such as headings, paragraphs, links and other content types and provides foundational framework for every webpage.  
  
**What is the function of HTTP?**   
HyperText Transfer Protocol (HTTP) is a protocol used to transfer data between a users browser and a web server. It ensures that requests for a specific web page or resource are sent and received correctly over the internet.  
  
**What role do web servers play?**   
Web servers have multiple roles, this includes storing, managing and delivering website content to users. When a user requests a webpage via URL, the web server process the request and sends the relevant content to the users browser.

**"URL stands for Uniform Resource Locator (URL). It is the address that is used to locate a specific resource on the internet like a webpage"**

Yup - It's basically the 'address' of the page.

**"Hypertext is a system of text which is interconnected throuugh hyperlinks which allows users to navigate between varying pieces of information non-linearly"**

Yes, and it's the non'linear' part that is important as this is why it's called the 'web'.

***"HyperText Markup Language (HTML) is the standard language which is used to both create and structure content on the web"***

Great!

***"HyperText Transfer Protocol (HTTP) is a protocol used to transfer data between a users browser and a web server"***

Wonderful!

***"Web servers have multiple roles, this includes storing, managing and delivering website content to users"***

Indeed, though here the main thing we are looking for is that it is where web documents are stored.

Thanks for this Jarryd - I think you've managed to capture everything!

Cheers  
Stew

# 3. What is the relationship between the World Wide Web and the Internet?

Jarryd does a lot of heavy lifting here by basically providing all the key points we are looking for in response to this question:

***"The internet [is] the global network of interconnected computers and servers which enables communication and data exchange."***

***"The internet is the foundation infrastructure, but the web is a specific application which utlizes the foundation to deliver hyperlinks and multimedia. "***

***"They are not entirely reliant upon each other. The internet can exist without the web and still support services like email and streaming."***

Great! In your answer, it's a good idea to include example of other applications outside of the web that make use of the internet's underlying connectivity.

**RE: The relationship between the Internet and the Web**

[**Collapse**](https://lms.curtin.edu.au/webapps/discussionboard/do/message?action=list_messages&course_id=_144602_1&nav=discussion_board_entry&conf_id=_1299347_1&forum_id=_2134479_1&message_id=_12876642_1)

Top of Form

**What are the differences between the Web and the Internet?**  
The interned tends to be the global network of interconnected computers and servers which enables communication and data exchange. It is the infrastructure which supports services such as email, file transfer and online gaming. The Web, however, is a service that is built on top of the internet. It uses technologies like HTTP, HTML and URLs to access and share multimedia content through web browsers.  
  
**What are the similarities between them?**  
Both the web and internet are similar as they are integral to digital communication and rely on technologies such as servers, data protocol and a physical infrastructure of networks. THey both enable access to information and connect people around the globe.  
  
**By thinking through the first question can you come up with ways to characterise the relationship between the Web and the Internet?**  
Their relationship is similar to the of highways (internet) and cars travelling on it (web). The web is a subset of the internet. The internet is the foundation infrastructure, but the web is a specific application which utlizes the foundation to deliver hyperlinks and multimedia.   
  
**Are they completely reliant upon one another?**  
They are not entirely reliant upon each other. The internet can exist without the web and still support services like email and streaming. Similarly, the web could still theoretically exist in a limited standalone network environment without connecting the internet. However its full functionality of the web requires the internet.  
  
**Can either of them exist and work on their own?**    
The internet can function independently, it still provides services like email and file sharing without the web. The web, however, requires the underling network to operate, it can theoretically function in a closed system without the internet.

Bottom of Form

OK, so everything you have written here is good.

However, we only need three key points for this question, which opens up a lot of word count for the more substantial responses.

Wonderfully, you've nailed these three points in your response:

***"The internet tends to be the global network of interconnected computers and servers which enables communication and data exchange."***

Great!

***"The internet is the foundation infrastructure, but the web is a specific application which utlizes the foundation to deliver hyperlinks and multimedia. "***

Indeed!

***"They are not entirely reliant upon each other. The internet can exist without the web and still support services like email and streaming."***

Great! In your answer, it's a good idea to include example of other applications outside of the web that make use of the internet's underlying connectivity.

*"The web, however, requires the underling network to operate, it can theoretically function in a closed system without the internet. "*

Yes, but then it wouldn't be a "world Wide" Web!  🤔

Cheers  
Stew

HI

*Q.****"What is the relationship between the Internet and the World Wide Web?"***

*A. The Internet is the global network of interconnected computers, while the World Wide Web is a system of information and resources accessed via the Internet using web browsers.*

*Q.***What are the differences between the Web and the Internet?**

*A. The Internet is the global network of computers where communication is enabled, but the Web (World Wide Web) is a system of linked documents and multimedia accessed through the Internet using browsers. The Web is just one Internet service.*

*Q.***What are the similarities between them?**

A. The Internet and World Wide Web are intercommunicating systems that allow seamless communication worldwide. Both ride on networking protocols such as TCP/IP, involve in their processes servers and clients, and facilitate information transfer, communication, and accessing of resources by different machines around the world.

Q. **Characterise the relationship between the Web and the Internet?**

A. The Web is a service built on top of the Internet that allows users to access interlinked documents and multimedia using browsers. The Internet is the global network infrastructure on which the Web, email, and many other services are based.

Q. **Are they completely reliant upon one another?**

A. No, the Internet and the Web are not completely dependent on each other. The Web depends on the Internet for connectivity, but the Internet carries other services (e.g., email, file transfer) that are independent of the Web.

Hi Amit,

Great responses across the board - Thanks!

**"The Internet is the global network infrastructure on which the Web, email, and many other services are based."**

**"The Web is just one Internet service."**

Yes - this is the important point/understanding we are aiming for here.

Cheers  
Stew

# 4. What are three purported differences between the World Wide Web as it first emerged and the more recent Web 2.0?

# 5. What are APIs and why are they significant to Web 2.0?

# References