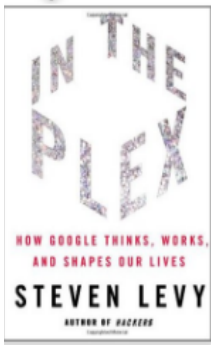


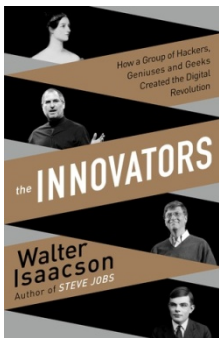
Book Recommendations



In the Plex: How Google Thinks, Works, and Shapes Our Lives (Hardcover)

by Steven Levy

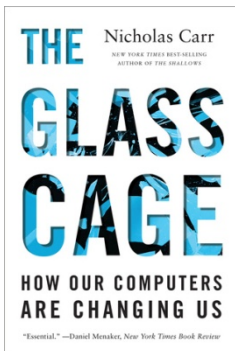
Written with full cooperation from top management, including cofounders Sergey Brin and Larry Page, this is the inside story behind Google, the most successful and most admired technology company of our time, told by one of our best technology writers.



The Innovators: How a Group of Hackers, Geniuses and Geeks Created the Digital Revolution

by Walter Isaacson

The computer and the internet are among the most important innovations of our era, but few people know who created them. They were not conjured up in a garret or garage by solo inventors suitable to be singled out on magazine covers or put into a pantheon with Edison, Bell, and Morse. Instead, most of the innovations of the digital age were done collaboratively.



The Glass Cage: How Our Computers Are Changing Us

by Nicholas Carr

In The Glass Cage, best-selling author Nicholas Carr digs behind the headlines about factory robots and self-driving cars, wearable computers and digitized medicine, as he explores the hidden costs of granting software dominion over our work and our leisure. Even as they bring ease to our lives, these programs are stealing something essential from us.



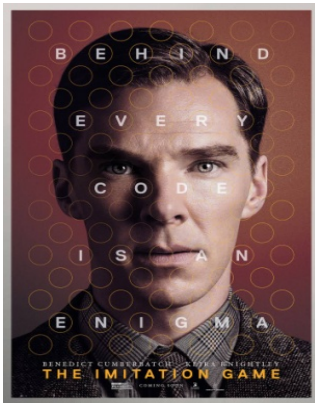
Big Data: A Revolution That Will Transform How We Live, Work, and Think

by Viktor Mayer-Schönberger, Kenneth Cukier

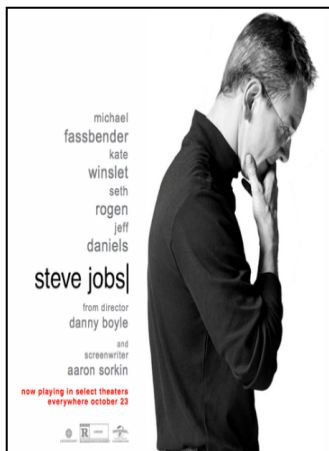
A revelatory exploration of the hottest trend in technology and the dramatic impact it will have on the economy, science, and society at large. Which paint colour is most likely to tell you that a used car is in good shape? How can officials identify the most dangerous New York City manholes before they explode?

Movies to watch

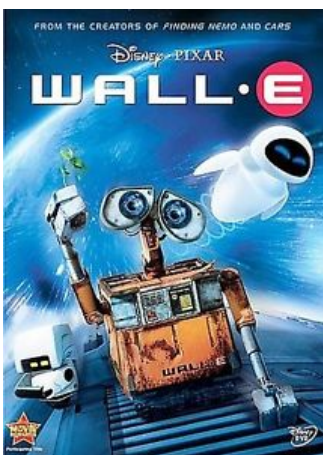
The Imitation Game



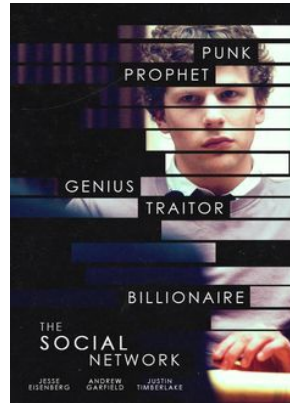
Steve Jobs



Wall-e



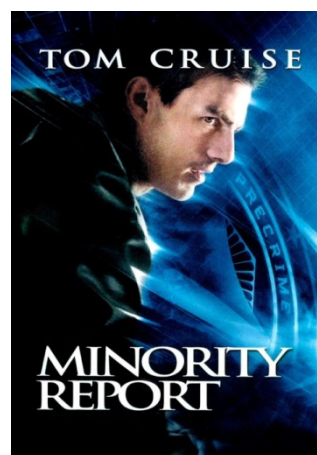
The Social Network



Die Hard 4.0

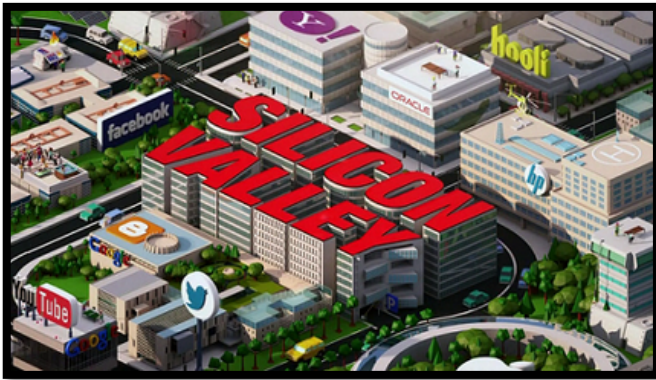


Minority Report



TV shows

Silicon Valley



Click



Black Mirror



Videos to watch online

- How Machines Learn by CGP Grey
<https://www.youtube.com/watch?v=R9OHn5ZF4Uo>
- Forget Wi-Fi. Meet the new Li-Fi Internet by Harald Haas
<https://www.youtube.com/watch?v=iHWIZsIBj3Q>
- The Internet of Things by Jordan Duffy
https://www.youtube.com/watch?v=mzy84Vb_Gxk

Research activities

Watch this video:

<https://www.youtube.com/watch?v=Nk2MBb96RJo>

Over the summer break start thinking about how you will implement these Top 10 Tips and ensure that you have put everything you need in place for September.

Below write down the three you most need to focus on:

1.

2.

3.

Watch this video:

<https://www.youtube.com/watch?v=Ahg6qcgoay4>

Test Your Awareness. Follow the instructions by counting how many 'passes' the white team make.

Pre-Knowledge Topics

- a. Digital devices in IT systems
- b. Transmitting data
- c. Operating online
- d. Protecting data and information
- e. Impact of IT systems
- f. Issues

How to be organised:

- Number and date all of your notes and handouts to keep them in order.
- Use a folder and file dividers to separate each unit for coursework.
- Take responsibility for catching up if you miss a lesson due to illness. Find the resources that you missed and also photocopy a friend's written notes.
- Check the relevant section in the textbooks and make extra concise notes if it improves your understanding. If you don't feel confident about a particular area, consult your teacher. Never be afraid to ask for help if you don't understand.
- Always come prepared to class, bringing course handbook, writing equipment, class notes from previous lessons, diaries etc.



If at any point you feel overwhelmed by the work – call for help – wave – don't drown!

Assignment Action Plan Proforma

Before starting each new assignment it is important that you think carefully about how you will complete your work to the highest standard you can, whilst always meeting the given deadlines. Answer the following questions – use the answers as a guide.

In summary, what do you need to do for each task? Talk about each individual task.	
When do you plan to start the tasks for this assignment?	
When do you plan to finish each of the tasks?	
Are there any words you don't understand from your assignment brief or from the lessons?	
How often will you review your work with your tutor?	
What is your final deadline?	
How will you check your work is written well and is accurate?	

Key Words in Vocational Assignments

Understanding the command words for different levels is vitally important for success. Below are sample words that may be used in assignments for the different levels. Fill in the definition of these words on the right-hand side on the table for Pass, Merit and Distinction.

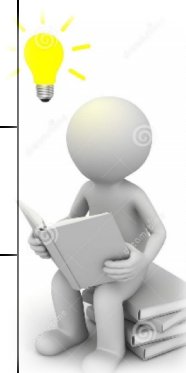


Key Words for a Pass

Complete	
Demonstrate	
Describe	
Identify	
List	
Name	
Outline	
State	

Key Words for a Merit

Analyse	
Comment on	
Compare and Contrast	



Describe	
Explain	
Justify	
Assess	
Discuss	

Key Words for a Distinction

Analyse	
Evaluate	
Justify	
Recommend	
Draw conclusions	



Theory and activities to complete

D1 THREATS TO DATA, INFORMATION AND SYSTEMS

The implications of accidental and malicious threats to the security and integrity of data, held in, and used by, IT systems.

- The characteristics of threats to data:
 - viruses and other malware
 - Hackers
 - Phishing
 - accidental damage.
- The impact of threats to data, information and systems on individuals.
- The impact of threats to data, information and systems on organisations



THE CHARACTERISTICS OF THREATS TO DATA

Viruses
and other
malware

Hackers

Phishing

Accidental
damage

THE IMPACT OF THE THREATS



D2 PROTECTING DATA

The features, uses and implications of systems and procedures used to protect the data of individuals and organisations.

- Processes and implications of techniques for protecting data and systems:
 - file permissions
 - access levels
 - backup and recovery procedures
 - passwords o physical access control
 - digital certificates o protocols
- The features, characteristics and implications of using:
 - antivirus software to protect data
 - firewalls to protect data
- The features, applications and implications of encryption methods used to protect:
 - stored data
 - data during transmission



DRAW A SPIDER DIAGRAM ON PROTECTING DATA



TOOLS FOR PROTECTING DATA

Tool	Description	Reason for using	Need to be aware of
Antivirus software			
Firewalls			
Encryption			

LEGISLATION FOR PROTECTING DATA

	Role	Impact on organisations	Impact on individuals
Data Protection Act 1998			
Computer Misuse Act 1990			

Characteristics and implications of methods of collecting data and opinions

The different methods of gathering data and opinions:

- ☐ Survey
- ☐ Questionnaire
- ☐ Focus groups
- ☐ Interview

For each one write....

- ❖ What is it?
- ❖ Advantages
- ❖ Disadvantages
- ❖ Reliability and validity?

How is IT used in business?

- ▶ Choose a large business
 - ▶ What IT do they use?
 - ▶ How does this benefit them?
 - ▶ How do they maintain their stock control?

Maybe look
into:
Tesco
Amazon
Sainsbury
Cadburys



This resource was generously shared with other PiXL schools by Foxford School and Community Arts College. Thank you.

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