Alan Turing The Enigma Man

This book gives the most comprehensive, in depth and contemporary assessment of this classic topic in artificial intelligence. It is the first to elaborate in such detail the numerous conflicting points of view on many aspects of this multifaceted, controversial subject. It offers new insights into Turing's own interpretation and is essential reading for research on the Turing test and for teaching undergraduate and graduate students in philosophy, computer science, and cognitive science.

Alan Turing, pioneer of computing and WWII codebreaker, is one of the most important and influential thinkers of the

twentieth century. In this volume for the first time his key writings are made available to a broad, non-specialist readership. They make fascinating reading both in their own right and for their historic significance: contemporary computational theory, cognitive science, artificial intelligence, and artificial life all spring from this ground-breaking work, which is also rich in philosophical and logical insight. An introduction by leading Turing expert Jack Copeland provides the background and guides the reader through the selection. About Alan Turing Alan Turing FRS OBE, (1912-1954) studied mathematics at King's College, Cambridge. He was elected a Fellow of King's in March 1935, at the age of only 22. In the same year he invented the abstract computing

machines - now known simply as Turing machines - on which all subsequent stored-program digital computers are modelled. During 1936-1938 Turing continued his studies, now at Princeton University. He completed a PhD in mathematical logic, analysing the notion of 'intuition' in mathematics and introducing the idea of oracular computation, now fundamental in mathematical recursion theory. An 'oracle' is an abstract device able to solve mathematical problems too difficult for the universal Turing machine. In the summer of 1938 Turing returned to his Fellowship at King's. When WWII started in 1939 he joined the wartime headquarters of the Government Code and Cypher School (GC&CS) at Bletchley Park, Buckinghamshire. Building on earlier work by Polish

cryptanalysts, Turing contributed crucially to the design of electro-mechanical machines ('bombes') used to decipher Enigma, the code by means of which the German armed forces sought to protect their radio communications. Turing's work on the version of Enigma used by the German navy was vital to the battle for supremacy in the North Atlantic. He also contributed to the attack on the cyphers known as 'Fish'. Based on binary teleprinter code, Fish was used during the latter part of the war in preference to morse-based Enigma for the encryption of high-level signals, for example messages from Hitler and other members of the German High Command. It is estimated that the work of GC&CS shortened the war in Europe by at least two years. Turing received the Order of the

British Empire for the part he played. In 1945, the war over, Turing was recruited to the National Physical Laboratory (NPL) in London, his brief to design and develop an electronic computer - a concrete form of the universal Turing machine. Turing's report setting out his design for the Automatic Computing Engine (ACE) was the first relatively complete specification of an electronic stored-program general-purpose digital computer. Delays beyond Turing's control resulted in NPL's losing the race to build the world's first working electronic stored-program digital computer - an honour that went to the Royal Society Computing Machine Laboratory at Manchester University, in June 1948. Discouraged by the delays at NPL, Turing took up the Deputy Directorship of the

Royal Society Computing Machine Laboratory in that year. Turing was a founding father of modern cognitive science and a leading early exponent of the hypothesis that the human brain is in large part a digital computing machine, theorising that the cortex at birth is an 'unorganised machine' which through 'training' becomes organised 'into a universal machine or something like it'. He also pioneered Artificial Intelligence. Turing spent the rest of his short career at Manchester University, being appointed to a specially created Readership in the Theory of Computing in May 1953. He was elected a Fellow of the Royal Society of London in March 1951 (a high honour).

Alan Turing was an extraordinary man who crammed into a

life of only 42 years the careers of mathematician, codebreaker, computer scientist and biologist. He is widely regarded as a war hero grossly mistreated by his unappreciative country and it has become hard to disentangle the real man from the story. It is easy to cast him as a misfit, the stereotypical professor. But actually Alan Turing was never a professor, and his nickname 'Prof' was given by his codebreaking friends at Bletchley Park. Now, Alan Turing's nephew, Dermot Turing, has taken a fresh look at the influences on Alan Turing's life and creativity, and the later creation of a legend. For the first time it is possible to disclose the real character behind the cipher-text: how did Alan's childhood experiences influence the man? Who were the

influential figures in Alan's formative years? How did his creative ideas evolve? Was he really a solitary, asocial genius? What was his wartime work after 1942, and why was it kept even more secret than the Enigma story? What is the truth about Alan Turing's conviction for gross indecency, and did he commit suicide? What is the significance of the Royal Pardon granted in 2013? In Dermot's own style he takes a vibrant and entertaining approach to the life and work of a true genius.

"Enigma's 'forgotten genius' . . . [the] story of Alan Turing's spymaster boss who led the team that cracked Hitler's WWII codes" (Daily Mail). The Official Secrets Act and the passing of time have prevented the Bletchley Park

story from being told by many of its key participants. Here at last is a book that allows some of them to speak for the first time. Gordon Welchman was one of the Park's most important figures. Like Alan Turing, his pioneering work was fundamental to the success of Bletchley Park and helped pave the way for the birth of the digital age. Yet, his story is largely unknown to many. His book, The Hut Six Story, was the first to reveal not only how they broke the codes, but how it was done on an industrial scale. Its publication created such a stir in GCHQ and the NSA that Welchman was forbidden to discuss the book or his wartime work with the media. In order to finally set the record straight, Bletchley Park historian and tour guide Joel Greenberg has drawn on Welchman's personal

papers and correspondence with wartime colleagues that lay undisturbed in his son's loft for many years. Packed with fascinating new insights, including Welchman's thoughts on key Bletchley figures and the development of the bombe machine, this is essential reading for anyone interested in the clandestine activities at Bletchley Park. "A magnificent biography which finally provides recognition to one of Bletchley's and Britain's lost heroes." —Michael Smith "Reveals a man equally as fascinating equally as important as Turing, and tells us even more about what went on in this most secret of establishments during the war years." —Books Monthly

Turing's Vision

Turing's Imitation Game
The Man Who Broke Enigmas
The Essential Turing
The Incredible True Story of the Man Who Cracked the Code
Alan Turing's Manchester

Turing's involvement in the world's first computer and his life in Manchester.

Outlines the Bletchley Park mathematician's efforts to launch artificial intelligence innovations, describing his thwarted attempts to gain support for a programmable calculating machine, his contributions to cracking the Nazi Enigma code

during World War II, and how the revelation of his homosexuality led to his tragic imprisonment and suicide. Reprint.

Can you tell the difference between talking to a human and talking to a machine? Or, is it possible to create a machine which is able to converse like a human? In fact, what is it that even makes us human? Turing's Imitation Game, commonly known as the Turing Test, is fundamental to the science of artificial intelligence. Involving an interrogator conversing with hidden identities, both human and machine, the test strikes at the heart of any

questions about the capacity of machines to behave as humans. While this subject area has shifted dramatically in the last few years, this book offers an up-to-date assessment of Turing's Imitation Game, its history, context and implications, all illustrated with practical Turing tests. The contemporary relevance of this topic and the strong emphasis on example transcripts makes this book an ideal companion for undergraduate courses in artificial intelligence, engineering or computer science.

Containing never-before-published material, this

fascinating account sheds new light on one of the greatest figures of the twentieth century.

A Guided Tour Through Alan Turing's Historic Paper on Computability and the Turing Machine

Alan Turing: Life and Legacy of a Great Thinker

Artificial Intelligence

The Elusive Standard of Artificial Intelligence

The Universal Computer

X, Y & Z

'Turing writes on codebreaking with understandable authority and compelling panache.' - Michael Smith, bestselling author of Station X. At Bletchley Park, some of Britain's most

talented mathematicians, linguists, and intellectuals were assembled to break Nazi codes. Kept secret for nearly thirty years, we have now come to realise the crucial role that these codebreakers played in the Allied victory in World War II. Written by Dermot Turing - the nephew of famous codebreaker Alan Turing - this illustrated account provides unique insight into the behind-the-scenes action at Bletchley Park. Discover how brilliant and eccentric individuals such as Dilly Knox, Alan Turing and Joan Clarke were recruited, the social life that grew up around the park, and how they dealt with the ever-present burden of secrecy. Including a foreword by Professor Christopher Andrew of Cambridge University, author of MI5's official history The Secret World, this book brings to life the stories of the men and women who toiled

day and night to crack the seemingly unbreakable enigma code.

Provides an expansion of Turing's original paper, a brief look at his life, and information on the Turing machine and computability topics.

A NEW YORK TIMES BESTSELLER The official book behind the Academy Award-winning film The Imitation Game, starring Benedict Cumberbatch and Keira Knightley It is only a slight exaggeration to say that the British mathematician Alan Turing (1912-1954) saved the Allies from the Nazis, invented the computer and artificial intelligence, and anticipated gay liberation by decades--all before his suicide at age forty-one. This New York Times–bestselling biography of the founder of computer science, with a new preface by the

author that addresses Turing's royal pardon in 2013, is the definitive account of an extraordinary mind and life. Capturing both the inner and outer drama of Turing's life, Andrew Hodges tells how Turing's revolutionary idea of 1936--the concept of a universal machine--laid the foundation for the modern computer and how Turing brought the idea to practical realization in 1945 with his electronic design. The book also tells how this work was directly related to Turing's leading role in breaking the German Enigma ciphers during World War II, a scientific triumph that was critical to Allied victory in the Atlantic. At the same time, this is the tragic account of a man who, despite his wartime service, was eventually arrested, stripped of his security clearance, and forced to undergo a humiliating treatment program--all for

trying to live honestly in a society that defined homosexuality as a crime. The inspiration for a major motion picture starring Benedict Cumberbatch and Keira Knightley, Alan Turing: The Enigma is a gripping story of mathematics, computers, cryptography, and homosexual persecution.

Dmitrii Mendeleev (1834–1907) is a name we recognize, but perhaps only as the creator of the periodic table of elements. Generally, little else has been known about him. A Well-Ordered Thing is an authoritative biography of Mendeleev that draws a multifaceted portrait of his life for the first time. As Michael Gordin reveals, Mendeleev was not only a luminary in the history of science, he was also an astonishingly wide-ranging political and cultural figure. From his attack on Spiritualism to his failed voyage to the Arctic and

his near-mythical hot-air balloon trip, this is the story of an extraordinary maverick. The ideals that shaped his work outside science also led Mendeleev to order the elements and, eventually, to engineer one of the most fascinating scientific developments of the nineteenth century. A Well-Ordered Thing is a classic work that tells the story of one of the world's most important minds.

Dilly

A Guide for Thinking Humans

The Road from Leibniz to Turing

The Enigma Man

The Man Who Knew Too Much: Alan Turing and the Invention of the Computer (Great Discoveries)

Alan TuringThe Enigma ManArcturus Publishing

In this 2013 winner of the prestigious R.R. Hawkins Award from the Association of American Publishers, as well as the 2013 PROSE Awards for Mathematics and Best in Physical Sciences & Mathematics, also from the AAP, readers will find many of the most significant contributions from the four-volume set of the Collected Works of A. M. Turing. These contributions, together with commentaries from current experts in a wide spectrum of fields and

backgrounds, provide insight on the significance and contemporary impact of Alan Turing's work. Offering a more modern perspective than anything currently available, Alan Turing: His Work and Impact gives wide coverage of the many ways in which Turing's scientific endeavors have impacted current research and understanding of the world. His pivotal writings on subjects including computing, artificial intelligence, cryptography, morphogenesis, and more display continued relevance and insight

into today's scientific and technological landscape. This collection provides a great service to researchers, but is also an approachable entry point for readers with limited training in the science, but an urge to learn more about the details of Turing's work. 2013 winner of the prestigious R.R. Hawkins Award from the Association of American Publishers, as well as the 2013 PROSE Awards for Mathematics and Best in Physical Sciences & Mathematics, also from the AAP Named a 2013 Notable Computer Book in Computing

Milieux by Computing Reviews Affordable, key collection of the most significant papers by A.M. Turing Commentary explaining the significance of each seminal paper by preeminent leaders in the field Additional resources available online

The highly eccentric Alfred Dillwyn Knox, known simply as 'Dilly', was one of the leading figures in the British codebreaking successes of the two world wars. During the first, he was the chief codebreaker in the Admiralty, breaking the

German Navy's main flag code, before going on to crack the German Enigma ciphers during the Second World War at Bletchley Park. Here, he enjoyed the triumphant culmination of his life's work: a reconstruction of the Enigma machine used by the Abwehr, the German Secret Service. This kept the British fully aware of what the German commanders knew about Allied plans, allowing MI5 and MI6 to use captured German spies to feed false information back to the Nazi spymasters. Mavis Batey was one of 'Dilly's girls',

the young female codebreakers who helped him to break the various Enigma ciphers. She was called upon to advise Kate Winslet, star of the film Enigma, on what it was like to be one of the few female codebreakers at Bletchley Park. This gripping new edition of Batey's critically acclaimed book reveals the vital part Dilly played in the deception operation that ensured the success of the D-Day landings, altering the course of the Second World War.

Bletchley Park was where one of the war's

most famous – and crucial – achievements was made: the cracking of Germany's "Enigma" code in which its most important military communications were couched. This country house in the Buckinghamshire countryside was home to Britain's most brilliant mathematical brains, like Alan Turing, and the scene of immense advances in technology – indeed, the birth of modern computing. The military codes deciphered there were instrumental in turning both the Battle of the Atlantic and the war in North Africa. But, though

plenty has been written about the boffins, and the codebreaking, fictional and non-fiction – from Robert Harris and Ian McEwan to Andrew Hodges' biography of Turing – what of the thousands of men and women who lived and worked there during the war? What was life like for them – an odd, secret territory between the civilian and the military? Sinclair McKay's book is the first history for the general reader of life at Bletchley Park, and an amazing compendium of memories from people now in their eighties – of skating on the frozen

lake in the grounds (a depressed Angus Wilson, the novelist, once threw himself in) – of a youthful Roy Jenkins, useless at codebreaking, of the high jinks at nearby accommodation hostels – and of the implacable secrecy that meant girlfriend and boyfriend working in adjacent huts knew nothing about each other's work.

The Annotated Turing

The Great Philosophers: Turing

The WW11 Codebreaking Centre and the Men and Women Who Worked There

Geniuses at War

Prof: Alan Turing Decoded
A Relative Story

Award winning authors Jim Ottaviani and Leland Purvis present a historically accurate graphic novel biography of English mathematician and scientist Alan Turing in The Imitation Game. English mathematician and scientist Alan Turing (1912-1954) is credited with many of the foundational principles of contemporary computer science. The Imitation Game presents a historically accurate graphic novel biography of Turing's life, including his groundbreaking work on the fundamentals of cryptography and

artificial intelligence. His code breaking efforts led to the cracking of the German Enigma during World War II, work that saved countless lives and accelerated the Allied defeat of the Nazis. While Turing's achievements remain relevant decades after his death, the story of his life in post-war Europe continues to fascinate audiences today. Award-winning duo Jim Ottaviani (the #1 New York Times bestselling author of Feynman and Primates) and artist Leland Purvis (an Eisner and Ignatz Award nominee and occasional reviewer for the Comics Journal) present a factually detailed account of Turing's life and

groundbreaking research--as an unconventional genius who was arrested, tried, convicted, and punished for his openly gay lifestyle, and whose innovative work still fuels the computing and communication systems that define our modern world. Computer science buffs, comics fans, and history aficionados will be captivated by this riveting and tragic story of one of the 20th century's most unsung heroes.

December, 1932In the bathroom of a Belgian hotel, a French spymaster photographs secret documents - operating instructions of the cipher machine, Enigma. A few weeks later a

mathematician in Warsaw begins to decipher the coded communications of the Third Reich and lay the foundations for the code-breaking operation at Bletchley Park. The co-operation between France, Britain and Poland is given the cover name 'X, Y & Z'.December, 1942It is the middle of World War II. The Polish code-breakers are in France on the run from the Gestapo. People who know the Enigma secret are not supposed to be in the combat zone for fear of capture so MI6 devises a plan to exfiltrate them. If it goes wrong, if they are caught, they could give away the greatest secret of the war.X, Y & Z describes how

French, British and Polish secret services came together to unravel the Enigma machine. It tells of how, under the very noses of the Germans, Enigma code-breaking continued in Vichy France. And how code-breakers from Poland continued their work for Her Majesty's Secret Service, watching the USSR's first steps of the Cold War.The people of X, Y and Z were eccentric, colourful and caught up in world events that they could watch not control. This is their story... Spring 1940: The Battle of the Atlantic rages. Vulnerable merchant convoys are at the mercy of German U-boats controlled by a cunning system

of coded messages created by a machine called Enigma. Only one man believes that these codes can be broken - mathematician and Bletchley Park cryptanalyst Alan Turing. Winston Churchill later described Turing's success in breaking the Enigma codes as the single biggest contribution to victory against Nazi Germany. Unheralded during his lifetime, Turing is now recognized as the father of modern computer science and as possessing one of the greatest minds of the 20th century. Drawing on original source material, interviews and photographs, this book explores Turing's groundbreaking work as well as

revealing the private side of a complex and unlikely national hero.
The story of the mathematical genius and father of computing whose codebreaking changed the course of the Second World War.
The Man They Called Prof
Reflections of Alan Turing
Alan Turing
Fall of Man in Wilmslow
Operating Systems
The Turing Guide
Everyone knows the story of the codebreaker and

computer science pioneer Alan Turing. Except When Dermot Turing is asked about his famous uncle, people want to know more than the bullet points of his life. They want to know everything was Alan Turing actually a codebreaker? What did he make of artificial intelligence? What is the significance of Alan Turings trial, his suicide, the Royal Pardon, the £50 note and the film The Imitation Game? In Reflections of Alan Turing, Dermot strips off the layers to uncover the real story. Its time to discover a fresh legacy of Alan Turing for the twenty-first century.

Alan Turing is regarded as one of the greatest scientists of the 20th century. But who was Turing, and what did he achieve during his tragically short life of 41 years? Best known as the genius who broke Germany's most secret codes during the war of 1939-45, Turing was also the father of the modern computer. Today, all who 'click-to-open' are familiar with the impact of Turing's ideas. Here, B. Jack Copeland provides an account of Turing's life and work, exploring the key elements of his life-story in tandem with his leading ideas and contributions. The book highlights Turing's

contributions to computing and to computer science, including Artificial Intelligence and Artificial Life, and the emphasis throughout is on the relevance of his work to modern developments. The story of his contributions to codebreaking during the Second World War is set in the context of his thinking about machines, as is the account of his work in the foundations of mathematics. The breathtakingly rapid pace of change in computing makes it easy to overlook the pioneers who began it all. Written by Martin Davis, respected logician and researcher in the theory of

computation, The Universal Computer: The Road from Leibniz to Turing explores the fascinating lives, ideas, and discoveries of seven remarkable mathematicians. It tells the stories of the unsung heroes of the computer age – the logicians. The story begins with Leibniz in the 17th century and then focuses on Boole, Frege, Cantor, Hilbert, and Gödel, before turning to Turing. Turing's analysis of algorithmic processes led to a single, all-purpose machine that could be programmed to carry out such processes—the computer. Davis describes how this incredible group, with lives as

extraordinary as their accomplishments, grappled with logical reasoning and its mechanization. By investigating their achievements and failures, he shows how these pioneers paved the way for modern computing. Bringing the material up to date, in this revised edition Davis discusses the success of the IBM Watson on Jeopardy, reorganizes the information on incompleteness, and adds information on Konrad Zuse. A distinguished prize-winning logician, Martin Davis has had a career of more than six decades devoted to the important interface between logic and

computer science. His expertise, combined with his genuine love of the subject and excellent storytelling, make him the perfect person to tell this story.

Written by a distinguished cast of contributors, Alan Turing: Life and Legacy of a Great Thinker is the definitive collection of essays in commemoration of the 90th birthday of Alan Turing. This fascinating text covers the rich facets of his life, thoughts, and legacy, but also sheds some light on the future of computing science with a chapter contributed by visionary Ray Kurzweil,

winner of the 1999 National Medal of Technology. Further, important contributions come from the philosopher Daniel Dennett, the Turing biographer Andrew Hodges, and from the distinguished logician Martin Davis, who provides a first critical essay on an emerging and controversial field termed "hypercomputation".

The Secret Intelligence Station that Helped Defeat the Nazis

The Secret Life of Bletchley Park

Pioneer of the Information Age

The Man Who Knew Too Much Illustrated

The Book That Inspired the Film The Imitation Game - Updated Edition

Turing

The dramatic, untold story of the brilliant team whose feats of innovation and engineering created the world's first digital electronic computer—decrypting the Nazis' toughest code, helping bring an end to WWII, and ushering in the information age. Planning the invasion of Normandy, the Allies knew that decoding the communications of the Nazi high command was imperative for its success. But standing in their way was an encryption machine they called

Tunny (British English for "tuna"), which was vastly more difficult to crack than the infamous Enigma cipher. To surmount this seemingly impossible challenge, Alan Turing, the Enigma codebreaker, brought in a maverick English working-class engineer named Tommy Flowers who devised the ingenious, daring, and controversial plan to build a machine that would calculate at breathtaking speed and break the code in nearly real time. Together with the pioneering mathematician Max Newman, Flowers and his team produced—against the odds, the clock, and a resistant leadership—Colossus, the world's first digital

electronic computer, the machine that would help bring the war to an end. Drawing upon recently declassified sources, David A. Price's Geniuses at War tells, for the first time, the full mesmerizing story of the great minds behind Colossus and chronicles the remarkable feats of engineering genius that marked the dawn of the digital age.

'Lively...in giving us the daily details of their lives in the women's own voices Dunlop does them and us a fine service' New Statesman 'Dunlop is engaging in her personal approach. Her obvious feminine empathy with the venerable ladies she spoke to gives her book an

immediacy and intimacy.' Daily Mail 'An in-depth picture of life in Britain's wartime intelligence centre...The result is fascinating, and is made all the more touching by the developing friendships between Dunlop and her interviewees.' Financial Times The Bletchley Girls weaves together the lives of fifteen women who were all selected to work in Britain's most secret organisation - Bletchley Park. It is their story, told in their voices; Tessa met and talked to 15 veterans, often visiting them several times. Firm friendships were made as their epic journey unfolded on paper. The scale of female involvement in Britain during the Second World

War wasn't matched in any other country. From 8 million working women just over 7000 were hand-picked to work at Bletchley Park and its outstations. There had always been girls at the Park but soon they outnumbered the men three to one. A refugee from Belgium, a Scottish debutante, a Jewish 14-year-old, and a factory worker from Northamptonshire - the Bletchley Girls confound stereotypes. But they all have one common bond, the war and their highly confidential part in it. In the middle of the night, hunched over meaningless pieces of paper, tending mind-blowing machines, sitting listening for hours on end, theirs was invariably

confusing, monotonous and meticulous work, about which they could not breathe a word. By meeting and talking to these fascinating female secret-keepers who are still alive today, Tessa Dunlop captures their extraordinary journeys into an adult world of war, secrecy, love and loss. Through the voices of the women themselves, this is a portrait of life at Bletchley Park beyond the celebrated code-breakers, it's the story of the girls behind Britain's ability to consistently out-smart the enemy, and an insight into the women they have become.
Alan Turing has long proved a subject of fascination, but following the centenary of his

birth in 2012, the code-breaker, computer pioneer, mathematician (and much more) has become even more celebrated with much media coverage, and several meetings, conferences and books raising public awareness of Turing's life and work. This volume will bring together contributions from some of the leading experts on Alan Turing to create a comprehensive guide to Turing that will serve as a useful resource for researchers in the area as well as the increasingly interested general reader. The book will cover aspects of Turing's life and the wide range of his intellectual activities, including mathematics, code-breaking,

computer science, logic, artificial intelligence and mathematical biology, as well as his subsequent influence.

"This book is organized around three concepts fundamental to OS construction: virtualization (of CPU and memory), concurrency (locks and condition variables), and persistence (disks, RAIDS, and file systems"--Back cover.

Bletchley Park, Colossus, and the Dawn of the Digital Age

Dmitrii Mendeleev and the Shadow of the Periodic Table, Revised Edition

Three Easy Pieces

Alan M. Turing

The Death and Life of Alan Turing
Natural Wonders Every Child Should Know
Alan Turing: Enigma: The Incredible True Story of the Man Who Cracked The Code If you have ever used a computer, you owe that joy to Alan Turing. Turing is known by many as the Father of the Modern Computer for his conception of the theoretical stored-memory machine (known as the Turing Machine) and for the subsequent implementation of this idea in the creation of some of the world's first working computers, the Automatic Computing Engine, and the Manchester Mark 1. Impressive as they are, though, Turing's contributions to computer

science are not necessarily his most famous or influential projects. Alan Turing was one of the most significant figures in the Allied victory of World War Two, thanks to his ingenious code breaking skills and the invention of the British Bombe at Bletchley Park. In his later life, Turing even dabbled in artificial intelligence, and biology, creating concepts that are still being investigated today. Until recently, Alan Turing had often been overlooked as an important figure in history. Thanks to in-depth biographies like Andrew Hodges' Alan Turing: The Enigma, and film depictions of Turing's life, like The Imitation Game, based on Hodges'

book, Alan Turing is quickly becoming a household name, as people begin to recognize that his contributions to various fields were so influential they actually changed the course of human history.

Alan Turing Alan Turing had a radical and ingenious mind. He is considered one of the fathers of artificial intelligence, and his theories on this matter range from purely mechanical to almost spiritual. During World War II, his decryption of the Nazis' Enigma codes proved vital for the Allied victory over the Axis powers. Turing's fingerprints are everywhere, and yet his own country for quite some time failed to

acknowledge it. It wasn't until 2009 that the then prime minister of the United Kingdom, Gordon Brown, issued an official, posthumous apology to Alan Turing for "the appalling way he was treated." To many, this was an admission that was far too long in coming. Inside you will read about... ▯ The Death of His First Love ▯ Turing Machines ▯ Breaking the Nazis' Enigma Codes ▯ Conviction and Chemical Castration ▯ The Poison Apple And much more! As the chronicling of this book demonstrates, Alan Turing's life was by no means easy; there were hardships, trials, and tribulations that would shake him to his core. But despite the tragic

way his life ended by way of a poison apple, the spark ignited by Alan Turing's short life is still something exceedingly brilliant to behold. Series Information: World War 2 Biographies Book 7

Alan Turing was an extraordinary man who crammed into his 42 years the careers of mathematician, codebreaker, computer scientist and biologist. He is widely regarded as a war hero grossly mistreated by his unappreciative country, and it has become hard to disentangle the real man from the story. Now Dermot Turing has taken a fresh look at the influences on his uncle's life and creativity, and the creation of a

legend. He discloses the real character behind the cipher-text, answering questions that help the man emerge from his legacy: how did Alan's childhood experiences influence him? How did his creative ideas evolve? Was he really a solitary genius? What was his wartime work after 1942, and what of the Enigma story? What is the truth about the conviction for gross indecency, and did he commit suicide? In Alan Turing Decoded, Dermot's vibrant and entertaining approach to the life and work of a true genius makes this a fascinating and authoritative read.

The official book behind the Academy Award-

winning film The Imitation Game, starring Benedict Cumberbatch and Keira Knightley Alan Turing was the mathematician whose cipher-cracking transformed the Second World War. Taken on by British Intelligence in 1938, as a shy young Cambridge don, he combined brilliant logic with a flair for engineering. In 1940 his machines were breaking the Enigma-enciphered messages of Nazi Germany's air force. He then headed the penetration of the super-secure U-boat communications. But his vision went far beyond this achievement. Before the war he had invented the concept of the universal machine, and in 1945 he turned this

into the first design for a digital computer. Turing's far-sighted plans for the digital era forged ahead into a vision for Artificial Intelligence. However, in 1952 his homosexuality rendered him a criminal and he was subjected to humiliating treatment. In 1954, aged 41, Alan Turing took his own life.
A Life From Beginning to End
The Turing Test
Alan Turing: The Enigma
The Imitation Game
Alan Turing: His Work and Impact
Conversations with the Unknown
From the author of the #1 bestseller The Girl in the

Spider's Web, an electrifying thriller that begins with Alan Turing's suicide and then opens out to take in a young detective's awakening to painful secrets about his own life--and the life of his country. It's 1954. Several English nationals have defected to the USSR, while a witch hunt for homosexuals rages across Britain. In these circumstances, no one is surprised when a mathematician by the name of Alan Turing is found dead in his home: it is widely assumed that he committed suicide, unable to cope with the humiliation of a criminal conviction for homosexuality. But young Detective Sergeant Leonard Corell, who had always

dreamt of a career in higher mathematics, suspects greater forces are involved. In the face of opposition from his superiors, he begins to assemble the pieces of a puzzle that lead him to one of the most closely guarded secrets of the war: the Bletchley Park operation to crack the Nazis' Enigma code. But he is also about to be rocked by two startling developments in his own life, one of which will find him being pursued as a threat to national security...

Melanie Mitchell separates science fact from science fiction in this sweeping examination of the current state of AI and how it is remaking our world No recent

scientific enterprise has proved as alluring, terrifying, and filled with extravagant promise and frustrating setbacks as artificial intelligence. The award-winning author Melanie Mitchell, a leading computer scientist, now reveals AI's turbulent history and the recent spate of apparent successes, grand hopes, and emerging fears surrounding it. In Artificial Intelligence, Mitchell turns to the most urgent questions concerning AI today: How intelligent—really—are the best AI programs? How do they work? What can they actually do, and when do they fail? How humanlike do we expect them to

become, and how soon do we need to worry about them surpassing us? Along the way, she introduces the dominant models of modern AI and machine learning, describing cutting-edge AI programs, their human inventors, and the historical lines of thought underpinning recent achievements. She meets with fellow experts such as Douglas Hofstadter, the cognitive scientist and Pulitzer Prize–winning author of the modern classic Gödel, Escher, Bach, who explains why he is "terrified" about the future of AI. She explores the profound disconnect between the hype and the actual achievements in AI, providing a

clear sense of what the field has accomplished and how much further it has to go. Interweaving stories about the science of AI and the people behind it, Artificial Intelligence brims with clear-sighted, captivating, and accessible accounts of the most interesting and provocative modern work in the field, flavored with Mitchell's humor and personal observations. This frank, lively book is an indispensable guide to understanding today's AI, its quest for "human-level" intelligence, and its impact on the future for us all.

In 1936, when he was just twenty-four years old, Alan Turing wrote a remarkable paper in which he outlined

the theory of computation, laying out the ideas that underlie all modern computers. This groundbreaking and powerful theory now forms the basis of computer science. In Turing's Vision, Chris Bernhardt explains the theory, Turing's most important contribution, for the general reader. Bernhardt argues that the strength of Turing's theory is its simplicity, and that, explained in a straightforward manner, it is eminently understandable by the nonspecialist. As Marvin Minsky writes, "The sheer simplicity of the theory's foundation and extraordinary short path from this foundation to its logical and surprising conclusions

give the theory a mathematical beauty that alone guarantees it a permanent place in computer theory." Bernhardt begins with the foundation and systematically builds to the surprising conclusions. He also views Turing's theory in the context of mathematical history, other views of computation (including those of Alonzo Church), Turing's later work, and the birth of the modern computer. In the paper, "On Computable Numbers, with an Application to the Entscheidungsproblem," Turing thinks carefully about how humans perform computation, breaking it down into a sequence of

steps, and then constructs theoretical machines capable of performing each step. Turing wanted to show that there were problems that were beyond any computer's ability to solve; in particular, he wanted to find a decision problem that he could prove was undecidable. To explain Turing's ideas, Bernhardt examines three well-known decision problems to explore the concept of undecidability; investigates theoretical computing machines, including Turing machines; explains universal machines; and proves that certain problems are undecidable, including Turing's problem concerning computable numbers.

Alan Turing was an extraordinary man who crammed into a life of only 42 years the careers of mathematician, codebreaker, computer scientist and biologist. His codebreaking work at Bletchley Park was so significant it helped to shorten the Second World War, and with Tommy Flowers he built the first computer. A man ahead of his time, many of his theories and calculations are still relevant today. Often believed to be an eccentric loner, recent research by his nephew, Dermot Turing, has unearthed a fresh perspective, and here his story is condensed into a short, accessible Pitkin guide.

Gordon Welchman
The Real Story of How Enigma Was Broken
War, secrecy, love and loss: the women of Bletchley Park tell their story
The Birth of Computer Science
Alan Turing Decoded
The Bletchley Girls

In this book from the critically acclaimed Little People, BIG DREAMS series, discover the life of Alan Turing, the genius code cracker and father of theoretical computer science and artificial intelligence. Alan grew up in England, where his best friends

were numbers and a little boy called Christopher. When his young friend died, Alan retreated to the world of numbers and codes, where he discovered how to crack the code of the Nazi Enigma machine. This moving book features stylish and quirky illustrations and extra facts at the back, including a biographical timeline with historical photos and a detailed profile of the brilliant mathematician's life. Little People, BIG DREAMS is a best-selling series of books and educational games that explore the lives of outstanding people, from designers and artists to scientists and activists. All of

them achieved incredible things, yet each began life as a child with a dream. This empowering series offers inspiring messages to children of all ages, in a range of formats. The board books are told in simple sentences, perfect for reading aloud to babies and toddlers. The hardcover versions present expanded stories for beginning readers. Boxed gift sets allow you to collect a selection of the books by theme. Paper dolls, learning cards, matching games, and other fun learning tools provide even more ways to make the lives of these role models accessible to children. Inspire the next

generation of outstanding people who will change the world with Little People, BIG DREAMS!

The Man Who Knew Too Much and other stories (1922) is a book of detective stories by English writer G. K. Chesterton, published in 1922 by Cassell and Company in the United Kingdom, and Harper Brothers in the United States.[1][2][3][4] The book contains eight connected short stories about "The Man Who Knew Too Much", and additional unconnected stories featuring separate heroes/detectives. The United States edition contained one of these additional stories: "The Trees of

Pride", while the United Kingdom edition contained "Trees of Pride" and three more, shorter stories: "The Garden of Smoke", "The Five of Swords" and "The Tower of Treason". Alan Turing's 1936 paper On Computable Numbers, introducing the Turing machine, was a landmark of twentieth-century thought. It settled a deep problem in the foundations of mathematics, and provided the principle of the post-war electronic computer. It also supplied a new approach to the philosophy of the mind. Influenced by his crucial codebreaking work in the Second World War, and by practical pioneering of the first

electronic computers, Turing argued that all the operations of the mind could be performed by computers. His thesis, made famous by the wit and drama of the Turing Test, is the cornerstone of modern Artificial Intelligence. Here Andrew Hodges gives a fresh and critical analysis of Turing's developing thought, relating it to his extraordinary life, and also to the more recent ideas of Roger Penrose.

Centenary Edition

The Codebreakers of Bletchley Park

A Well-Ordered Thing

Bletchley Park's Architect of Ultra

Intelligence
The Life of a Genius
Alan Turing: Enigma