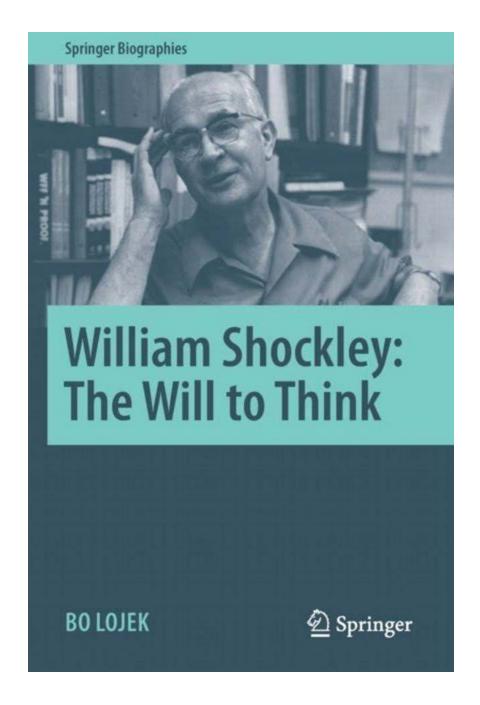
## William Shockley: The Will To Think - Springer Biographies

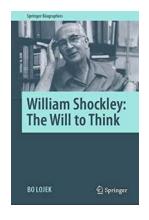


#### The Renaissance Man of Transistors: William Shockley

William Shockley, known for his pioneering work in developing the transistor, is considered one of the founding fathers of Silicon Valley. His contributions to the field of electronics have revolutionized various aspects of modern life. This article explores the life and achievements of William Shockley, shedding light on his remarkable journey and the impact he has made on the world.

#### **Early Life and Education**

William Bradford Shockley Jr. was born on February 13, 1910, in London. He came from a highly intellectual family, with both of his parents being renowned intellectuals. Shockley's father, William Bradford Shockley Sr., was a prominent mining engineer, while his mother, May Bradford Shockley, was a musician and educationalist.



### William Shockley: The Will to Think (Springer

**Biographies)** by Bo Lojek (1st ed. 2021 Edition, Kindle Edition)

★★★★★ 5 out of 5

Language : English

File size : 71337 KB

Text-to-Speech : Enabled

Screen Reader : Supported

Enhanced typesetting: Enabled

Word Wise : Enabled

Print length : 370 pages



Shockley completed his undergraduate studies in physics at the California Institute of Technology (Caltech). He later pursued his Ph.D. in physics from the Massachusetts Institute of Technology (MIT), where he conducted research on electron dynamics in solids.

#### **Contributions and Achievements**

Shockley's biggest achievement came in 1947 when he co-invented the transistor at Bell Labs alongside John Bardeen and Walter Brattain. The transistor, which replaced the bulky vacuum tubes used in electronic devices during that time, paved the way for the development of smaller, more efficient, and portable electronic devices.

The invention of the transistor revolutionized the field of electronics and laid the foundation for modern technology. It led to the creation of smaller, faster, and more reliable computers, televisions, radios, and countless other electronic devices that we use in our daily lives. The transistor's impact was so significant that it earned Shockley, Bardeen, and Brattain the Nobel Prize in Physics in 1956.

#### The Will To Think

William Shockley's book, "The Will To Think: A Guide for Those Who Would Fix the World", showcases his thoughts on various subjects, including education, politics, and society. Shockley believed in the power of critical thinking and encouraged individuals to challenge the status quo, seek knowledge, and make rational decisions based on evidence.

In "The Will To Think," Shockley delves into topics such as nuclear energy, race and intelligence, and the impact of genetics on society. While some of his viewpoints were controversial, his work sparked important discussions and fueled further research in various fields.

#### **Legacy and Later Life**

After leaving Bell Labs, Shockley founded the Shockley Semiconductor Laboratory in 1956. However, due to various management issues and disagreements with his employees, the company faced multiple challenges. Several key employees, including Robert Noyce and Gordon Moore, eventually

left Shockley's company to form Fairchild Semiconductor, which later became Intel Corporation.

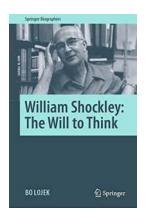
Despite the setbacks, Shockley continued to contribute to the field of semiconductors and taught at Stanford University, where he became controversial due to his views on race and intelligence. Shockley passed away on August 12, 1989, leaving behind a complex legacy.

### **Inspiring Future Generations**

William Shockley's work and ideas continue to inspire scientists, engineers, and critical thinkers around the world. His contributions to the field of electronics have shaped our modern society, creating a lasting impact that will be felt for generations to come.

As we celebrate the life and achievements of William Shockley, we recognize his unwavering curiosity, his dedication to scientific exploration, and his intellectual courage. His legacy serves as a reminder that innovation and progress require individuals who are willing to think differently and challenge conventional wisdom.

William Shockley, with his will to think, left an indelible mark on the world. His story is a testament to the power of ideas and the potential for one person to make a profound difference.



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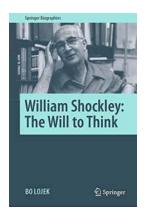


This book takes a fresh look at the work, thoughts, and life of 1956 Nobel Prize winner William B. Shockley. It reconstructs Shockley's upbringing, his patriotic achievements during World War II, his contribution to semiconductor physics – culminating with the epoch-making invention of the transistor – and his views on the social issues of his time.

The author's unparalleled access to Shockley's personal documents provides insight into a colorful, yet controversial, man, and also sheds light on the attitudes of other prominent scientists of that era. Shockley was not only an outstanding scientist in his own right but also a fiercely independent thinker in perpetual search of the truth. His contributions to the field known today as microelectronics are enormous and unmatched. This book explores the critical facets of Shockley's life, replete with never-before-published photos and excerpts from his private correspondence and personal notebooks.

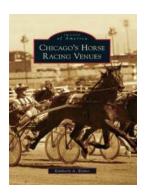
The book also delves into Shockley's views on genetics and human intelligence. It tells the story of a man beset by an unrelenting rationality, slandered by the popular media, and ultimately alienated by his peers. It discusses his controversial, although sometimes prescient, ideas regarding human genetics, putting these into the context of modern research findings.

Today, William Shockley is perhaps just as enigmatic as his work and accomplishments. The author presents a convincing argument that Shockley still has much to say about the issues of our age, and many of his ideas deserve evaluation in the public forum.



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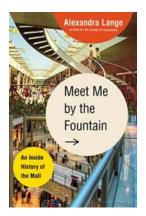
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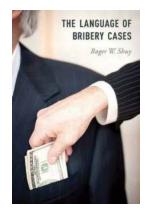
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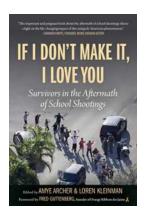
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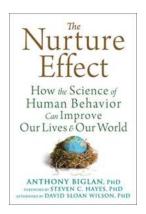
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