'Imitation Game' introduces WWII codebreakers to audiences

February 20 2015, byPhilip Marcelo

Kenneth Rendell, founder and director of the World War II Museum, poses with Nazi Enigma encryption machines on display in Natick, Mass., Wednesday, Feb. 18, 2015. In the Oscar-nominated film "The Imitation Game," Benedict Cumberbatch leads a code-breaking operation targeting the Nazis' infamous Enigma encryption machines. Rendell says his museum boasts the largest U.S. collection of Enigmas outside of the NSA. (AP Photo/Elise Amendola)

The Oscar-nominated film "The Imitation Game" may fudge some of the facts and amp up the drama to appeal to Hollywood audiences, but

there's still a lot the film gets right about the Allied effort to crack the German armed forces' sophisticated communications code during World War II, says the owner of one of America's largest collections of Enigma encryption machines used by the Nazis.

Kenneth Rendell, a historian and collector who operates the Museum of World War II, says the movie's biggest achievements are introducing the critical wartime contributions of pioneering British mathematician and computer scientist Alan Turing to new audiences and showcasing the legendary complexity of the Nazi code machines, which were used for nearly every level of military communication, from the mundane to the top secret.

The role Allied codebreakers played in saving lives and bringing an end to the deadliest conflict in history wasn't widely known until the 1974 publication of the book "The Ultra Secret" by former British intelligence officer F.W. Winterbotham.

"The net result of the movie, I think, is giving people a very good idea of what really went on—with the complexity of Enigma, with how important it was to do it, how important people were," Rendell said Thursday in his sizeable museum, which is tucked in a business park about 20 miles west of downtown Boston. "It's too bad that many of the folks depicted in the movie did not live long enough to see their story told."

He says "The Imitation Game," which stars Benedict Cumberbatch and Keira Knightley, also shows the importance of the "intellectual side" of warfare and how technologies like computers, radar, jet engines and plastics were developed or refined during the war years.

Turing, who died in 1954 of cyanide poisoning, is widely considered a founding father of computer science. His work would lead to the

development of concepts like "artificial intelligence."

Rendell says the movie makes some missteps, including its portrayal of Turing's struggles as a gay man in the war effort and how it plays down the significant role women—not just Knightley's character—had at Britain's famed codebreaking center, Bletchley Park.

A Nazi Enigma encryption machine is displayed at the World War II Museum in Natick, Mass., Wednesday, Feb. 18, 2015. In the Oscar-nominated film "The Imitation Game," Benedict Cumberbatch leads a code-breaking operation targeting the Nazis' infamous Enigma encryption machines. The obscure suburban Boston museum boasts the largest U.S. collection of Enigmas outside of the NSA. (AP Photo/Elise Amendola)

"All of this drama about him being blackmailed during the war because

he was gay, it wasn't true. In those circles, I just don't think anyone cared," Rendell said of Turing. "And there were a lot of women breaking codes at Bletchley Park. Women really played a big role."

Critics and other historians have noted other liberties in the movie, which takes its name from a test the real Turing developed to see if machines could exhibit human intelligence.

For example, the name of Turing's code breaking machine is called "Christopher" in the film, apparently after a childhood crush. It was actually called "Victory."

Rendell suggests Turing's mathematical genius was helped, in no small part, by "human error." Nazi coders were either too confident that no one would ever crack their code, he says, or they simply became sloppy or careless over time, leading to lapses that ultimately helped Turing and his team break the code faster.

"Human nature was really a big element," he says. "Because it was supposed to be unbreakable, people relaxed."

Rendell says he began collecting Enigma machines, many of which resemble a round-button typewriter encased in a sturdy wooden box, when their existence first became public long after World War II ended.

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Among his prized possessions are two Enigma machines that can still communicate with one another, meaning museum patrons can encrypt and decrypt messages themselves.

The museum, which was established in 1999 and contains over 7,000 artifacts, displays nine Enigma machines, the largest private collection on display in the U.S, according to Rendell.

Only the National Security Agency, which owns more than 50 machines and loans them out to museums around the country, has more, he said.

A Nazi backpack infantry radio, left, inscribed with the warning "The enemy is listening!" sits next to a Nazi Enigma encryption machine on display at the World War II Museum in Natick, Mass., Wednesday, Feb. 18, 2015. In the Oscar-nominated film "The Imitation Game," Benedict Cumberbatch leads a code-breaking operation targeting the Nazis' infamous Enigma encryption machines. The obscure suburban Boston museum boasts the largest U.S. collection of Enigmas outside of the NSA. (AP Photo/Elise Amendola)

"The Imitation Game," released in the U.S. in late November, is up for Best Picture and seven other Oscar awards. Cumberbatch has been nominated for Best Actor award while Knightley is up for Best Supporting Actress.

The 87th Academy Awards ceremony airs Sunday at 7 p.m. EST on ABC.