

Breaking Enigma: Decrypting Victory

Braeden Lagasse and Connor Lagasse

Senior Division

Group Website

Website Word Count: 1196

Process Paper Word Count: 500

Website Media Length: 1:31

When we were choosing our topic, we knew we wanted a topic that related to mathematics and technological advancements because of our shared interest in these fields. However, we also knew we wanted to research technological advancements in war because they have unique characteristics: not only do they often greatly contribute to the war effort, but the advancements created from war lead to technological prosperity in times of peace. Given these criteria, we decided that the breaking of the Enigma Code during World War II would fit perfectly and related to the theme of turning points in history, given that after the code was broken, decrypted intelligence was used to win battles, and machines developed to break the code laid the foundation for modern-day Computer Science.

We decided to start our research by looking for newspapers of the codebreaking and accounts of the code breaking by Enigma codebreakers. We quickly ran into a roadblock - the Enigma code and its breaking were highly classified, and many codebreakers died before the code's secrecy was broken in the 1970s. This meant only a couple of accounts - such as helpful ones by Polish codebreaker Marian Rejewski and British codebreaker Gordon Welchman, but no newspaper articles about the code breaking. The global scale of the codebreaking also left some accounts and books unavailable; such as the book written by French General Gustave Bertrand and actual German documents about the Enigma. Any resource that wasn't digitized was also unavailable due to the large distance to them. However, through declassified documents, photographs, and after-war accounts we were able to piece together the story of the creation and breaking of the Enigma Code.

We decided to present our research in the form of a website due to our large collection of declassified documents that would be difficult to present in another format. The website also complimented all of the photographs we had collected. To create our project, we started by dividing our topic into key points that would serve as the pages on our website. Then, we used the primary sources we had collected on that key point to build a complete narrative. We experimented with different layouts to best illustrate our point. While building our website, we

also had to do some additional research to find some photographs that were needed to illustrate important events or people.

Our historical argument is that the breaking of the Enigma code provided the Allies with crucial information to win battles in World War II, and greatly advanced the field of Computer Science. These turning points in both World War II and Computer Science have significant historical implications: a different outcome of World War II would have been disastrous for the Allies and the world and Computer Science has changed the way that we communicate, entertain, research, and collaborate. The breaking of the Enigma Code as a constituent of both of these turning points surmounts it as a decisive moment in history - not only for the codebreakers, but for the world.