The Paradigm Shifts in Intelligence:

From 1800 to Present

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Abstract

This article reviews the evolution of intelligence gathering methods from the late 1800's to the Cold War. While the changes in these methods can be directly connected to the development of improved technology and changing ideology, the concerns and arguments around these methods have remained the same. The progress of time blurred the lines between foreign and domestic actions. At the same time, perceived threats to nations moved from external to internal as information and communicating became easier to access. Through the years, the field of intelligence has gotten more complex as ideology, institutions, and technology have become increasingly interconnected and diverse.

Introduction

While the methods of gathering information used for intelligence purposes have changed drastically over the past few centuries, some of the concerns and arguments surrounding these methods remain the same. The changes that have occurred are directly related to the evolution and development in technology and ideology. What remains the same is directly related to the relationship between a populace and its government. As the world becomes more and more interconnected, the lines between foreign and domestic are becoming blurrier. From eras of Western imperialism and autocracy to decolonization and democratization, intelligence has remained a constant effort in order for governments maintaining control domestically as well as understanding how allies and foes are operating abroad. Mark Lowenthal describes intelligence as a process, a product, and an organization (2017). This definition of intelligence still rings true today and has been true throughout all of history as governments have put institutions in place which gather information of value either diplomatically or during a period of war. Carl Von Clausewitz of the 19th century said, "war... is merely the continuation of diplomacy by other means (Clausewitz, 1962)." In Sun Tzu's *The Art of War*, he argues that knowledge is power on the battlefield and in order to defeat your enemy, deception is necessary (Tzu, 2006). These ideas of war and diplomacy are considered to be timeless by some and outdated by others. One thing has not changed: gathering information about other actors whether in war time or time of negotiation are crucial for advancing a nation's interests.

Throughout the 1800's, perceived threats to sovereign states began to shift from external to internal as a result of increased access to information and communication during the Industrial Revolution. Not only were nations worried about their enemies abroad, but they were also worried about potential threats on their own soil. A similarity can be found in the wake of the rise of the internet and how domestic surveillance has increased dramatically. Today information and intelligence are shared between nations through organizations such as the North Atlantic Treaty Organization (NATO) and the Five Eyes (FVEY). The organizations which have gathered and analyzed information have evolved from the cryptographers and code breakers in the "Black Cabinets" of 18th century Europe, to the secret agents operating in Britain's colonies post World War II, to the creation of multi-national intelligence organizations and Joint Intelligence, Surveillance, and Reconnaissance (J-ISR) efforts in NATO and the European Union (EU) (Gottemoeller, 2018).

These overarching themes of technological development, ideology, and structural organization have remained consistent over the past two centuries, but some of the overarching questions of intelligence ethics remain. How vital is the truth to good intelligence? What is considered ethical and not ethical in intelligence operations? Where is the line drawn for surveillance? How can a government ensure privacy and security for their citizens while monitoring for internal threats? What are the relationships between the intelligence community and policy makers? How has cybersecurity introduced a new threat to intelligence? These uncompromising questions have not disappeared, nor will they disappear for some time. Looking back into the history of intelligence, we can understand how these questions formed and changed over time. We will find that they have grown more complex as technology, ideology, and institutions have evolved to be more interconnected and diverse than ever before.

Industrial Revolution

The first half of the 19th century held many changes in technology, ideology, and the

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organization of governments and therefore intelligence services. The Industrial Revolution was in full swing and that meant advancements in communication, transportation, information, manufacturing, health, and war. Notable inventions include the telegraph in the 1830s, the telephone in the 1870s, an undersea cable between Europe and North America by 1866, and the radio in 1895. Along with these new methods of communication came new methods of documenting information and record keeping. The typewriter allowed for information to be copied quickly onto index cards and then organized into steel filing cabinets (Warner, 2014). But for the autocratic rulers in Europe in the early 1800's, these advancements resulted in the questioning of their powers and citizens called for a greater representation in their governments.

The revolutions across Europe in 1848 were a direct response to the oppression populations had lived under for so long at the hand of monarchies that ideas of Liberalism quickly spread with the help of new technologies. This marked the end of the Medieval era "Black Cabinets" that had existed in Europe previously. These intelligence offices relied upon intercepted information of other powers and then had professional code breakers and deciphering specialists who worked for the European monarchs (Tulard, 1991). But these technological advances of the Industrial Revolution did not come without consequences for the average person and low-wage worker. The rise in manufacturing lowered the number of jobs and devalued the skills of the common urban worker. Many skilled laborers saw their trades overrun by machines and new inventions which created a sense of loss in society. Economically, these advancements isolated money to the high echelons of society resulting in monopolies and oligarchies that abused working class citizens and did not adequately provide for them (Warner, 2014). The fight for liberal ideals continued throughout the century on both the domestic and foreign fronts.

Advancements in technology also includes advancements in design of weapons. Warner writes, "If liberal ideals of property rights, trade, and the rule of law had gained wide influence in the West, the prosperity they helped to create ensured that the introduction to such ideas in the rest of the world was often announced by cannon fire" (Warner, 2014). In the 1860's, the United States was ravaged by Civil War. Union soldiers employed the use of heavier than air balloons to scout out where Confederate forces were hiding. Warner gives the example of Union allegiant Captain Custer who would send his reconnaissance balloon into the air before sunrise in order to scout Confederate campfires locations (Warner, 2014). These balloons seemed like a crucial and competitive technology at the time, but overtime the heavier than air reconnaissance vessels were seen as slow and vulnerable.

Meanwhile in Europe, leaders were more concerned with putting the industrialization of war to good use by quelling uprisings and revolutionaries on their mainland and abroad. The British Empire was full force in asserting their power and influence over central and southern Asia in India, Persia, and Afghanistan. However, the Russian Empire was also expanding their affairs into the region. The feud between the two empires became known as the "Great Game" and British foreign dignitaries gathered intelligence on Russia's dealings with tribal leaders in Afghanistan. This was an old pastime of British spies in their colonies.

Late 1800's

By 1873, the Topographical and Statistics Department of the War Office had been renamed to the Intelligence Branch (later the Intelligence Department) and worked to gather useful intelligence on foreign militaries, maps, and developments in their colonies around the world. In India, British intelligence efforts were much more intrusive to the native populations than in Afghanistan. India had a history of established communications and government as seen

in the Mughal and Hindu systems and were very well organized. When the British East India Trading Company arrived and set out to exploit the land and people, they did so ineffectively with little ability to understand the indigenous systems even though they attempted to manipulate these systems.

The British strategy of gathering intelligence about the native population was to implement their own postal service and replace the one that had previously existed. The service that was already in place used the working of well educated harkaras or 'do-alls' that worked as runners to spread information and acted as the 'human intelligence' informants of the time. Indian leaders did not want to allow the British to use their postal runners because they feared what the British might do with the intelligence they gathered, but the British would recruit them for their service. These leaders were not keen on sharing their power with the British (Bayly, 1996). Other ways the British would attempt to gather information was in the Indian courts and the Persian newsletter. The courts were filled with people who were reporting information back to their allies or were sharing information for a bit of money. The newsletter was unfiltered information about different ruling families in court or important merchants and gave the British very useful intelligence about the native population. Bayly refers to it as a "tolerated espionage" system" (1996). However, the British lacked the perspective of their indigenous counterparts and were unable to infiltrate and destroy the patrimonial Indian society. The intelligence failures as a result came to fruition in the rebellion of 1857. The British were too concerned with the statistics and economics of the native populace and knew nothing of their "sentiments, politics, or beliefs" (Bayly, 1996). The British Empire knew very little of the people and land they had colonized, and this put them at a huge disadvantage.

In Europe, police forces grew and special branches were created to deal with and spy on violent extremists within their own borders. These branches spied on the populace because new ideologies were running rampant through societies came as a violent reaction to liberal ideals and "came in many stripes: traditionalist, religious, socialist, anarchist, nationalist, ethnic, and racial" (Warner, 2014). In Ireland, the Fenians were becoming increasingly more violent in their nationalist sentiments in the 1880s, so the London police force created its Special Irish Branch in 1883. By 1888, the office had been renamed to the Special Branch and dealt with several other domestic unrests through surveillance and intelligence gathering. Similar police reforms took place in Europe around the same time period with the Sûreté Nationale in France and the Department for Protecting the Public Security and Order or *Okhrana* in Russia. The Okhrana eventually began operations abroad in Paris in 1883 and shared information with French authorities while keeping tabs on their own expatriates. The Okhrana were even known to deploy *agents provocateurs* who would stir unrest amongst French revolutionaries (Warner, 2014).

While the different interpretations of intelligence in society, government, economics, and foreign affairs remained at the forefront of political discussions, critics of the ethics of intelligence did not remain silent. In 1895, British General George Furse publishes *Information in War* and voices his opinion of the ethics of intelligence processes:

"The very term spy conveys to our mind something dishonourable and disloyal. A spy, in the general acception of the term, is a low sneak who, from unworthy motives, dodges the actions of his fellow beings, to turn the knowledge he acquires to his personal account" (Warner, 2014).

By 1900, American usage of the telegraph and telegram in the Civil War had resulted in privacy

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concerns surrounding the new technology. The sparring soldiers would intercept the other's messages so enciphering was a way to maintain the secrecy of their movements. Some of the questions asked throughout history are still being asked today with the introduction of new technologies. "Who owned the information transmitted along a wire strung by someone else? Who had a right to hear it or view it? For the purpose of law enforcement, was it public speech, or private" (Warner, 2014)?

The turn of the century brought about a new outlook on intelligence in Western Europe along with a surge in spy-fiction literature. The industry of war had brought about a new appreciation for what spies do for their nations, and how effectively they do it. Many of the stories written foreshadowed the war to come, but nothing would compare to the Great War. Spy mania had the effect of facilitating the acceptance of spying as a part of war and it widely became recognized as a profession. In 1910, MI5 was created in Britain as the formal domestic intelligence service and the Secret Intelligence Service for foreign intelligence. Both replaced the short-lived Secret Service Bureau that set the precedent of design for British intelligence services. The world was set for global war and "the needs of governments and militaries to gather and concentrate information by all available means were beginning to transform spycraft into intelligence" (Warner, 2014).

World War I

The Great War polarized to the Triple Entente (Russia, France, and Britain) and the Triple Alliance (included Italy who later joined the Triple Entente) or Central Powers (Germany, Austria-Hungary, Bulgaria, and the Ottoman Empire). Sabotage agents were used early on in the war, particularly by Germans in America. Because the US was relatively neutral at the outset of the war, American banks were loaning huge sums of money to the Europeans in conflict. German sabotage agents set fire to a facility full of arms in New York harbor that were meant to aid the Triple Entente. Germany's secret agents were less effective on the tactical level in Britain because MI5 was very effective at arresting suspected spies (Warner, 2014). The most effective methods of intelligence proved to be by monitoring and intercepting enemy signals like radio transmissions. While human saboteurs were effective on the tactical level, radio intercepts aided in understanding the tactical and strategic operations of your enemy. This often took decoding and deciphering your enemy's messages. In 1917, the Zimmerman telegram was intercepted by British "Room 40" - a code breaking task force that focused on diplomatic correspondence across the Atlantic (Warner, 2014). It was the German Foreign Minister George Zimmerman who was making an offer to the Mexican president at the time to wage war on the United States together. It ultimately brought the US into the war which quickly exposed how American intelligence efforts had a lot of catching up to do. The Military Intelligence Division (MID) was created quickly in 1917 as a matter of necessity and Warner argues is an example of changes in the organization and intelligence doctrine for all powers during the war, just on a much shorter timeline than their European counterparts (Warner, 2014).

Also in 1917, the US passed the Espionage Act that empowered the Federal Bureau of Investigations (FBI), created in 1908, to serve as a federal counterintelligence agency. The technological advancements were amazing in the four years of war and one key weapon that changed warfare forever was the airplane. It not only operated as a weapon, but also for reconnaissance and intelligence gathering. But it was ultimately signals intelligence (SIGINT) that helped the Triple Entente win the war in 1918 with radio triangulation and transmission interception to know where German U-boats' locations (Warner, 2014).

Restructuring in the Interwar Era

The interwar period saw a regime change in Russia during the Bolshevik revolution which maintained power with the help of their intelligence service known as the "All-Russian Extraordinary Commission for Combating Counter-Revolution, Profiteering and Corruption," otherwise called *Cheka*. The Cheka organization in Russia was a brutal force that hunted down and killed anyone who seemed like a potential threat to their revolution. It was described as a "loose organization and no standards but revolutionary fervor made them drunk with power and desperate to save the revolution-- and themselves" (Warner, 2014). Like in Germany and Italy, the economic downturn following WWI led to party extremism, totalitarianism, fascism, and Communism. These ideologies were not isolated to these countries. Britain too was seeing a rise in Communist and Socialist sentiment on their mainland. British intelligence services were keeping tabs on the Communist Party of Great Britain (CPGB) in order to contain their operations. The creation of the Signals Intelligence Service (SIS) in 1929 was the beginning of several organization reforms. MI5 was renamed the Security Service (domestic) and the Secret Intelligence Service was confined to foreign operations (Warner, 2014).

The US on the other hand was undergoing a very harsh isolationist policy after WWI. Many American leaders were not keen on the idea of spying and espionage during peacetime and had ethical issues with the idea. The head of MID said in 1920, "Secret Service methods carried on by military agencies cannot be justified in time of peace." Although it is not confirmed, Herbert Hoover's Secretary of State, Henry Stimson, is believed to have said, "Gentlemen do not read each other's mail" (Warner, 2014). The American reforms of the time reigned in the power of investigators and attempted to keep the FBI out of the politics of Washington. The FBI was going to train their agents in "scientific standards of evidence gathering and professional ethics" (Warner, 2014). However, some officials warned of the abilities that the government had developed during the war. Supreme Court Justice Louis Brandeis said of the government's relationship with technology, "The progress of science in furnishing the government with means of espionage is not likely to stop with wiretapping" (Warner, 2014).

In the build up to World War II while American and Britain's intelligence agencies were weakening, intelligence institutions of Germany and Russia grew stronger. As a result of emergences of ideologies, power vacuums, and economic crises in both countries after WWI, intelligence efforts were intertwined in the political scene as the Bolshevik Communist Party took hold in Russia and the Nazi Party in Germany. The German *Abwehr* maintains it status of military intelligence and operates mainly as the foreign intelligence service while the Nazi *Schutzstaffel* (SS) gains power domestically, especially from its intelligence branch, the *Sicherheitsdienst* (SD) (Warner, 2014). The Russian institutional reforms included the NKVD (People's Commissariat for Internal Affairs) and GRU (Soviet Military Intelligence). All of these organizations shared a counterintelligence policy which was formed from their ideological beliefs. The German ideology of racial purity ended up being a huge limitation for them throughout the duration of the war.

World War II

Germans tried to infiltrate British government by dropping spies into the British countryside via airplane, but almost all were caught and turned into double agents. This became known as the Double Cross system. This counterintelligence move was a great victory of human

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intelligence (HUMINT) for the British during the war. After the war however, the Soviet espionage efforts proved much more effective than that of the Germans. The "Magnificent Five" or "Cambridge Five" were Soviet informants who had reached the higher ranks within the British intelligence services including the Foreign Office, SIS, and MI5. The British Government Code & Cypher School (GC&CS) at Bletchley Park was created as an gigantic deciphering task force that used ground breaking technology at the time, the first computer known as *Colossus*. The technology was used to break German Enigma code in a top secret operation called Ultra which was kept very quiet (Warner, 2014). However, the success of the Soviet infiltration through the Cambridge Five is seen in their intelligence regarding the secretive Ultra operation at Bletchley Park. This gave the Soviets a full view of British code breaking abilities. The GC&CS was later renamed the Government Communication Headquarters (GCHQ) in 1945 (Walton, 2013).

After the war, intelligence did not stagnate as it did after WWI. It does quite the opposite. As the Soviet Union is enhancing their espionage capabilities and stealing secrets of American nuclear weapons development, the US begins to reform their own institutions. The Office of Strategic Studies (OSS) disbanded in 1945 and made way for the National Security Act of 1947 which created the Central Intelligence Agency (CIA). The US Army Security Agency (ASA) becomes Armed Forces Security Agency (AFSA) in 1949, which eventually becomes the National Security Agency (NSA) in 1952. In Russia, the KGB appeared in 1954 (Warner, 2014).

Cold War

The Cold War brought about a new era of intelligence institutions and ideologies through huge technological advancements. The worlds' superpowers were the main intelligence powers because they were the only nations who had the money to put into the development of intelligence services and agents. However, colonies around the world were rebelling against their various imperial powers and the British and French Empires were granting certain areas the right to self-governance. This left open a power vacuum in these countries which were then vulnerable to fall into the Soviet sphere of influence. As seen in India after independence, V.N. Krishna Menon served as the High Commissioner of India in London and as an outspoken left-wing politician. It was obvious to Britain's MI5 (technically domestic service, except for former regions of the commonwealth) and India's Director of Intelligence Bureau (DIB) that Menon could have been receptive to the Communist cause. The KGB was very active in India in the 1950's which was strategic on the Soviet's part in an effort to turn former colonies against their imperial powers. Many methods of thought in communist circles saw imperialism as the evil product of capitalism. Walton writes that "Britain and its Western allies failed to prevent India from gravitating towards the Soviet Union in the Cold War" (Walton, 2013).

Since the Cold War, the US has seen its greatest reform in intelligence organizations in the post September 11 era. In 2004, the Office of the Director of National Intelligence (ODNI) was created in an effort to have all sixteen American intelligence agencies underneath one bureaucratic figure. The CIA saw major growth after the attack, the Defense Intelligence Agency (DIA) grows along with the rest of the military intelligence services, and the Department of Homeland Security (DHS) was created. Nowadays, technology has evolved exponentially with drone surveillance, Robotic Process Automation (RPA) unmanned aircraft, worldwide GPS, and the democratization of the internet have completely revolutionized the industry of war, and therefore intelligence, yet again. For intelligence and technology are intrinsically connected. Ideologies have sparked another war on the concepts of religion, imperialism, and liberal ideals.

Privacy is a question now more than ever with the increased sharing of information online, mostly willingly, on social media. This has led to a heightened surveillance of all-American citizens. No matter the era, the balance between freedom and privacy remains an issue. Now it is even more complex a question with more methods of communication than ever before. Although the fact still remains according to Furse:

"Necessity knows no laws, and means which we would disdain to use in ordinary life must be employed in the field, simply because we have no other that we can turn to profitable account. Information has sought through spies in all wars, and we can plead in our favor that the enemy will not scruple to employ them in his behalf."

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