

# Has technology made strategy obsolete? 1636



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Has Technology Made Strategy Obsolete? It has been said that, "improvements in technology for waging war have made strategy increasingly irrelevant." This is not the case; strategy is actually becoming more important with the development of more sophisticated military technology. Firstly it must be clearly defined how strategy and technology relate to each other. There have been many different views on what, in effect, constitutes strategy. If one were to compare Sun Tzu's concepts of strategy and compare them to that of Clausewitz, it would be clear that the two defined strategy much differently. Sun Tzu viewed strategy as a much larger issue than did the Clausewitz. He believed that an overall strategy that utilized political alliances, misinformation, intelligence and strategic planning was the key to what he believed the pinnacle of military victory was; to win the war without ever having to fight. Clausewitz had a much narrower view of strategy, one that would more correctly be determined as tactics. Clausewitz believed in the supremacy of direct military conflict as the sole arena for states to resolve their differences and satisfy their ambitions. He focused then, on the best way to win the war, believing that war was inevitable. It is clear then, that while both men wrote on the subject of war, their focus was on different levels of warfare, Sun Tzu's focus was on strategy, or grand strategy, while Clausewitz's focus was on the tactical level, or operational strategy. Technology is of a different ilk altogether than the closely related topics of tactics and strategy. Technology is the tools with which the war is waged. It can consist of not only mechanical instruments, but of nuclear, chemical and biological tools as well. Technology is an ever changing, constantly improving, element of warfare that has throughout history continually improved the efficiency with which mankind can kill one and

other. Technology Strategy Tactics The key to understanding the issue is to understand how the three elements, technology, tactics and strategy are connected to each other and more specifically, how changes in one area of will drive changes in the other. Technology is the core to the whole process. A requirement is identified and a weapon, or weapons system is created in order to fill that requirement. Once this has been done, the military leadership must then study the characteristics of the new weapon and determine the optimum way in which to use it. In short, they must adapt or develop a set of tactics within which to employ this new weapons system. This process of developing tactics to most efficiently utilize a weapons system is not restricted to new weapons. Napoleons identification and development of light mobile cannon is a case in point. He determined a need, the technology was created and then Napoleon devised a new set of tactics, massed canon fire, with which to best exploit the characteristics of the new weapon. Once a new weapon is introduced and effective tactics are designed for its operational employment, there is an understandably urgent requirement for the opposing force to develop some form of defence against it. This is generally done in two ways. Firstly the opposing Army must adapt its tactics in order to minimize its vulnerability and secondly they must develop a countering technology that will neutralize the new threat. A case in point here is the First World War. As an example, the impact of the wide spread introduction of the machine gun on maneuver style warfare of the late 19th century cannot be overstated. Very simply put, the volume of fire that could be generated by several well placed machine guns along an army's front guaranteed that any attacking force would loose and loose badly. Any soldier in open ground was a target for the machine gunners and

so the solution was to adapt the tactics of the day from maneuver warfare into trench warfare. These changes in tactics provided the Army with the ability to hold the ground already taken and yet remain out of danger of the withering direct fire generated by the opposing forces machine guns. Improvements in the technology of trench and bunker construction also, to some extent, countered the threat posed by the indirect fire of mortars and artillery to static targets on the battlefield. Thus the stalemate of the western front was achieved. It was an adaptation to the technology of the day, which was not to be broken until the introduction of superior artillery tactics, in the form of the creeping artillery barrage, and a new technology, the tank. The Predominant strategy in WW1 Europe was the pursuit of national goals through open warfare between states or groups of states in alliances. The terrible carnage of WW1 did little to change that, the fact that second World War was fought between the same nations some 20 years later was over the same ground is stark proof that the strategy of nations had not changed. This is because the game of balancing tactics and technology had been successfully played out at the operational level during the WW1, and as a result, the strategic thought of the day remained unchanged. Resolution of intrastate disagreements and ambitions would be achieved through the successful conduct of military campaigns. Technology during the inter war years had been improved upon as well as tactical doctrine that allowed the Hitler's armies to roll unchecked in the initial years of the war. The tank, the very technology that had contributed to the breaking of the stalemate on the Western Front in 1917 had been improved upon and the tactic of the blitzkrieg had been devised to employ this technology to its best possible advantage in 1939. Throughout the Second World War both sides plunged

into a race to develop newer and better technology and tactics to counter the others sides. But the overall master plan remained the same; victory through the military destruction of the opponents ability to make war. With the development of the Nuclear Bomb and its subsequent use by the United States on Japan in 1945, we see a technology that effectively reached past the tactical barrier, directly into the strategic arena with regard to its impact on the conduct of war. Tactics were developed throughout the cold war to most effectively employ this new weapon in line with the old strategy. But it became increasingly clear that the old strategy was simply untenable, war had been rendered technologically un-winnable and so with the development the new strategy of Mutually Assured Destruction (MAD) signaled a shift from a strategy of war fighting to a one of war avoidance. The pursuit of national interests had to find a different strategy or medium. It could be argued that this new strategy has taken on a far more economic nature as could be evidenced by the rise multinational trading blocks and the globalization of the planets national economies. While there were many small proxy wars fought between the super powers and many technical advances in the areas of aircraft design, armored vehicle development, surveillance and intelligence technology, but again the overall impact of these was primarily limited to the technical/tactical sphere. The switch to the new economic strategy ended even the cold war, which had begun under the old strategy of military conflict. The Western powers led by the United States unquestionably one the cold war. The defeat of the Soviet Block was not a military one, technologically the USSR had been able to match anything the west could build and in fact often surpassed the US. The ongoing Soviet Space Program and the demonstration of the MIG 27 fighter at the Paris Air

Show just prior to the collapse of the USSR showed that right up until the end the Soviet Union was the equal of the west militarily. It was the effect of Reagan's rearmament program and his desire to reinvigorate the arms race by pushing forward with his Strategic Defence Initiative (SDI) or "Star Wars" plan that finally broke the economically weaker USSR. Currently, the US Army's is driving toward the development of a Strategic Anti-missile System; recent successful tests of this new technology raise the specter of a return to the winnable war scenario. These new technologies has, as all technology is, been developed to finally and directly eliminate the threat generated by initial development of the nuclear strike capability. The question that now begs to be asked is whether this technology will once again change the strategic focus away from the economic arena and back to the military one? Technology has not rendered strategy obsolete. Certain military technological advances, which are continually reshaping the tactical realm, have managed, by the sheer magnitude of their impact, reached beyond that area to change the Grande Strategy by which nations plan their success. As we see, strategy changed in order to counter the threat posed until a counter technology was developed. The interplay of tactics, technology and strategy is cyclical and symbiotic in nature with each element being driven by changes in the other.