

## BOOK REVIEW

# TECHNOLOGY'S UNLIKELY APPLICATION OF THE ART OF WAR

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### ABSTRACT

The Art of War has become one of the most popular and influential texts of Chinese literature; it has found use beyond the military and strategic purposes similar to how the West has found use for it in business. What's surprising, however, is that one can observe that technology itself was able to apply the Art of War in how it has become such a pervading force of everyday life today, with most of humankind today essentially relying on technology. This paper first tackles a number of related questions; afterwards, each chapter of the Art of War will be examined and analyzed to decipher how technology itself "applied" (or could not apply) the knowledge in that chapter.

**Keywords:** *Art of War, Technology, Philosophy, Application*

The Art of War has become one of the most popular and influential texts of Chinese literature; it has found use beyond the military and strategic purposes. The West has found use for it in business – no surprise, given as our day-to-day skirmishes can also be deemed as “war” in our own contexts. What’s surprising, however, is that one can observe that technology was able to apply the Art of War in how it has become one of the most important facets of human life today, with most of humankind today essentially relying on technology, one way, or another. Each chapter of the Art of War (more so the first half rather than the latter half) will be examined, and analyzed for how technology “applied” the knowledge in that chapter.

Before proceeding, some preliminary questions must first be answered.

*What exactly is pertained to by saying, “technology?”* The simplest definition that can be ascribed to would be “everything that isn’t found naturally in nature.” The simplest tools of humans in the prehistoric era, for example, can still be regarded as technology. In writing this paper<sup>1</sup>, however, technology is regarded as the *whole* of technology; from the aforementioned simple tools of prehistory, to the electric and the electronic tools of today. This is technology that has become an indispensable part of human life, albeit abstract and without sentience.

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<sup>1</sup> As I am a Computer Science major, I am admittedly seeing through that lens.

*What war would technology be waging?* It's no surprise that the Art of War can be applied outside of war; it may be surprising, however, to see that an inanimate object – an abstract notion, in fact – applying it. The war of technology would simply be the war to be, to persist, and to stay. When someone invents something, it may not have literal life, like a living, breathing organism; yet it's undeniable that it's there. Only when it's truly forgotten, is it truly dead.

If technology were to have an enemy, it would simply be those that oppose technology. This will most likely be contextualized in the era of modernity, arguably where technology has begun to have harmful, abusive effects. Technology doesn't exactly oppose them, however – no means are made by technology itself, to oppose them, after all. Technology doesn't need to target and fight them, even if it could have – technology is there; it just is.

*If technology really applied the Art of War, would it be the State, or the general?* It's more difficult to consider it the general; after all, technology is always wielded and created by someone else. It is not a subject (at the least, at this very moment) – technology does not choose how it is to be created; it does not design itself. All technology, at the end of the day, is man-made and not naturally found in nature. Even if some piece of technology can create or enhance itself, it was still affected into existence by someone else for some predetermined purpose. If technology were a general, then it must have been an agent with autonomy and decisive capability. Then does this mean that if or when artificial

intelligence came to be – to the level of tales of science fiction – technology can be regarded as a general? What if one piece of technology manages to create something else on its own, for example?

A general is still different from the State that he serves – the general can be the State (as he is a member of it, a part of, and a proponent of the State); but the State cannot be just the general. Similarly, if one gadget, one robot does achieve sentience, it's still not connected to "technology" as a principle, as an idea, as a whole. If, by some stroke of circumstance an artificially intelligent machine does manage to connect to the rest of technology, then it just proves that there was a prevailing larger body, a larger idea of "technology as a whole." So before this sentient thing, there indeed was a "State" of technology.

*So if technology is more of a State, then who are its generals? It's easy to say, 'anyone who uses it,' as they are all responsible for helping technology win its war. But wouldn't they be more members of the army, than of the generals? They aren't exactly contributing to its growth and progress. Again, the technology in question is technology as a whole. If a State were applying the Art of War, it doesn't mean that the State, as a whole, were applying the Art of War; it means that its generals are the ones who apply it – but as established, technology itself is not a general, as it is not a being of sentience. By extension, this means that it cannot employ generals; at least, not consciously. Technology doesn't think. It is people who choose to ascribe to technology.*

*Technology is a State that, in it, applies the Art of War.* It's tempting to say that technology is both a State and a general, neither in the traditional sense; but it is more of a State than a general; and although the exact identities of its generals – if any – are hard to pinpoint, the elements of the Art of War are still easily observable in its development, and each chapter will be examined as to how it applies (or doesn't apply) the Art of War.

Chapter 1 tells of the importance of war; that it's a matter of life or death<sup>2</sup>; and to comprehend it, there are actually only five factors to consider. Moral law/Moral influence<sup>3</sup> (道) makes it possible for people to trust in their leader. Heaven/Weather (天) refers to night and day, hot and cold; it pertains to the factor of temporality in all that occur. Earth/Terrain (地) pertains to distances, the lay of the land, the ground; spatiality is the focus here. Command/The Commander (将) deals with the general's traits, characteristics, and virtues. Method/doctrine deals with the organization and control of soldiers, the logistics of supplies, and the economics of the military. It boils down to the excellence of each of these elements, the excellence of the army, and the excellence of the balance between rewards and punishment<sup>4</sup> to determine which of two sides in a war will be the victor.

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<sup>2</sup> All ideas from the Art of War were taken per chapter; the exact references used are listed in the Bibliography.

<sup>3</sup> The former of the terms is from *text*; the latter, from Griffith.

<sup>4</sup> Very legalist!

The other side of the Art of War, however, would be the capacity to *create* the situations; one can actively *control* the balance. Confuse the enemy regarding one's own status – when one is near or capable, appear otherwise. Use the enemy against himself – use his rashness or arrogance against himself; take advantage of anything he is unprepared for. This unpredictability (and the enforcing of these unpredictabilities!) is what will determine one's success.

Each of the five factors can be observed with technology.

Moral influence can easily be found in the relationship of technology and its users. Seeing as how prevalent technology is in humans' everyday lives, people seem to trust technology a lot, even if they do not understand everything that goes on within it. There is trust in technology. Today, currency can even be placed in a digital form, payments can be transacted online, and it's even becoming a trend of how people's lives and/or secrets are starting to be posted online. It's hard to disregard technology as a State or some notion that people would ascribe to – humans have become so reliant on it, for better or worse. *We like* using technology. Thus technology has been able to use moral influence.

Weather – the factor of time. Technology has slowly but surely progressed over time, and today it's advancing even more quickly than before. Technology is artificial, technology is controlled by humans – its time will naturally be “in rhythm” with the timing of humankind. Simply put, it's a given that Technology would have mastered the factor of time.

Terrain: what distances has technology traversed? The physical bits, pieces, and examples of technology have definitely travelled far and wide; especially with globalization. With this, of course, comes the abstract idea of technology: that of ideas, of technical knowledge, of expertise, that have, over time, been shared across the world. Technology – the luxury of it, the need for it, the reliance on it – has traversed all distances.

Command: the traits of the commander themselves are just as important; technology is not a general, but it does appear to manifest positive traits. This ties to Moral Influence, which will not be possible if the Commander himself, is not respectable. Technology, for better or for worse, has contributed a lot to making people's lives more comfortable, convenient, and conducive. Technology doesn't will this, of course – but it's hard not to see why people do trust in it.

Doctrine is one thing technology doesn't have. It is not a general; it is not a subject, not a living being. How then, could it have organized its “army?” Technology doesn't organize itself. It's not as if the development of all technology is managed by only one singular body. Its advancements and progress are advancements of science and technology, research and development, creation and invention, themselves. It is not controlled; it is a person's natural phenomenon to be curious and to discover; and technology is driven by this curiosity. It doesn't drive itself, however.



Meanwhile, humans' reliance on technology has been cited many times; these are how technology can be seen to have created its own situations to its own advantage.<sup>5</sup> What's remarkable is that the magnificence of modern technology could not have been imagined in the days of old. Who would've guessed the advent of Facebook, of computers, of television, and of cellphones? Humans didn't have the need to update a page to show off the highlights of their everyday lives. Meals were started with prayers, and not picture-taking. Technology developed very slowly, but very surely. Until today we are easily surprised by the developments of new gadgets and new features, even though we may claim to already have a grasp of what technology is capable of, that we have an idea of what "cutting-edge technology" really means. Somehow, technology still manages to advance in ways that humans initially can't imagine; it catches them off guard in many different ways. The more human beings learn, the more they figure out how much they don't know. The field of computer science, for example, is but one scenario of this; there's always a craving for better, better, better – when people started talking of how Moore's Law<sup>6</sup> is reaching its limit, people found, and technology advanced to deal in the area of quantum computing, redefining computers and even electronics forever. Simply put, technology advances, and

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<sup>5</sup> Meant in the metaphoric sense. I do not wish to depart from the fact that technology doesn't operate itself.

<sup>6</sup> Moore's law essentially says that technology – more precisely, the development of computers – advances at an exponential rate; advancements "stack up" on one another, effectively quickening its development even more.



technology never sleeps; but it's easy to forget this, and technology will always surprise that it's still existent; that it's still here, and that it's improving.

Chapter 2 can be summarized to say that war is to be quick. To paraphrase, there has been no clever operation that has been prolonged<sup>7</sup>. It's not saying that war should be rash and impulsive; rather, the more drawn-out war is, the more draining it is; morale, funds, and supplies will naturally be depleted more and more over time. One way to counter this would be how good generals will also plunder the enemy; taking the enemy's supplies and captives as their own. Why need to raze everything down, after all? Supplies are still supplies after all. In doing so, the general manages to restore depleted supplies.

The war of technology is to remain relevant, to persist, and to exist. A question that comes up would be, was it won quickly and concisely? For technology<sup>8</sup> that was successful in staying, people *chose* to use them – and people usually make this decision right after encountering technology for the first time. For some, technology may take a while to get used to. Since technology's war is simply to *be*, one can say technology always accomplishes its end of the deal. As it's still a State and not exactly an army, it doesn't seem to have resources that can get depleted; but the principle of a

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<sup>7</sup> Sun Tzu. (1963). *The art of war* (p. 73). (S. Griffith, Trans.). New York: Oxford University.

<sup>8</sup> Here I consider a lower level of technology, the individual gadgets – some have been remembered or are being remembered for now, while some have been forgotten. Simple example, the Walkman vs the iPhone or iPod.

war drawn out being more likely to be a loss than a victory is here – some technologies that are harder to pick up are much more frustrating to learn, aren't they? And they become losses – because people don't want to learn something too difficult.

Good technology manages to take enough of what was pre-existing to create or apply something new; that's how it stays. The iPhone and iPad, for example, were easy enough to pick up because its functional was very intuitive; it goes back to the very basic notion of tapping or poking at something that a user would want selected. Simply put, it goes back down to the basics; that's why Apple's technology stays. Interesting, how it parallels good generals being those who also know to get what they can out of what's prevalent, and not just to start everything from scratch.

To take it one level back up, technology as a whole can be regarded as successful in being “quick,” in a similar way that technology was quite early on discovered by the Homo sapiens. Early humans realized the usefulness of stone tools – just like that, technology was born.

Chapter 3 builds up on the previous chapter; it can be summarized as saying, a hundred battles won is nothing compared to a win without a single battle.<sup>9</sup> As it's better to take a whole State or its people intact, instead of attacking their army per se, it is more viable to attack their strategy or their alliances. Never attack a city as it is too wasteful, meaning the war will not be quick or

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<sup>9</sup> Sun Tzu, p. 77.

succinct. An important part of this chapter is that it introduces the possibility of retreating when it is impractical to remain in or pursue the offensive. It's also a weakness if generals don't know their own army, the army doesn't know its general, or either doesn't know itself well enough. One of the most popular lines of the Art of War summarizes, that for victory, we must know not just the enemy but also ourselves.

When technology reveals itself, it is never just something distinctly new on its own; it is always a product of shared knowledge, experiences, and expertise across all the different people who have contributed to technology. This can be regarded as how technology knows itself: technology will not become something entirely, purely new. As its knowledge is never baseless or from scratch (more so in the modern era), it will never be previously undefined. As was mentioned, if something was too unfamiliar – *i.e. not drawing from these past knowledge or experiences* – it will be more difficult for it to catch on. Here it can be observed how technology “attacks” our strategies – once again, it changed man's daily rituals and rhythms. Technology “knows” us, especially those who may initially be enemies (*i.e. those who are initially unaware of certain technologies*), as it wraps around our life.

A last point of the chapter, however: has technology retreated? It seems that it has; what with all the individual technologies that have been discontinued. All the technologies that exist today are the ones that have won the war; yet there were much, much more

which did not. And those that didn't stay knew to "retreat" – technology didn't advance where it's not meant to advance. It stops, and advances instead what are meant to be advanced.

The fourth chapter deals with dispositions – the disposition that springs from being more defensive than offensive. Victory may come from attacking, but indestructability comes from defending. A skillful commander who masters this can also master the enemy; to the point where the enemy is one who is already defeated. The disposition here is compared to that of "a hundred-weight balanced against a grain."<sup>10</sup> When going to attack, it can be like a spring, loaded with potential force.

Technology "applies" this simply in how easy it is to take technology for granted, especially with the younger generations who've been using gadgets since their early years. It is so easy to forget that all connections one has to the electronic world didn't even exist a century ago. Imagine a day where you do not have any technology at all – life would be very, very different. There's a reason questions about being stuck on deserted islands are interesting – the idea of being separated from all technology has become a daunting thought for many. If a hacker was able to break into all electronics (thereby changing the war of technology, or wielding technology), then tech would've had quite the disposition, having become quite rooted in human life, and it'll be devastating when it attacks.

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<sup>10</sup> Sun Tzu, p. 88.

The last chapter that can relate technology to the Art of War would be the 12<sup>th</sup> chapter, using fire in war. Simply put, it's very destructive – but of course, it can also, in turn, damage the one who threw fire. That's where there's a right time and a right place for using fire – it can't be done in the attacker's own territory, for example, as doing so will only raze one's own lands. The valuable idea here is that fire can cause the enemy to panic; this just might be the true damage of fire.

There have been multiple occasions where technology has rained fire on its users – a more literal take would be how it can cause havoc, like how a popular mobile phone was said to explode. A more serious take would be how the analytics of Facebook and the rise of artificial intelligence have caused its users to question just how far technology has come, and until how far *should* it go. The Y2K bug is also a good example of how a simple programmer's error caused much of the world's infrastructures and computers to be prone to error. These are not “weapons” used by technology in its war – at least, not directly; as technology was after all strengthened after these problems emerged. It's apparent, however, that this is not how Sun Tzu intended fire to have meant.

The other chapters of the Art of War are not as applicable to technology as they are concerned with matters that are of no consequence to a “State” like technology.

Chapters 5, 7, 8, and 10 wouldn't apply, as technology doesn't really concern itself with management. These revolved around how commanders would select people, how they manage these people, how they communicate with them, and how they react to

situations. But technology doesn't share this subjectivity; it is more a State than a commander. Technology per se doesn't control how its resources would be managed, either. There would be no need of a notion of obedience, as the people are the ones who choose to ascribe to or follow technology, so it, as a "State," wouldn't be able to enforce a balance between rewards and punishment, either.

Chapters 9 and 11 also cannot be related as the subject of the matter is the whole of technology; the State of technology, not necessarily specific pieces or instances of technology. Technology wouldn't transport itself; *it's already there*, because technology as a whole progresses whenever someone makes a discovery and shares it with others.

Lastly, chapter 13 wouldn't work directly as well, as technology doesn't necessarily need to be informed of knowledge from another force – it is a body of knowledge in itself, so to speak.

The Art of War is very simple, logical, and fundamental – it's often even mentioned as to how much of it is actually just common sense or knowledge that everyone will happen upon after thinking long and hard enough; but that is precisely the beauty of the Art of War: it has no presuppositions.

Confucianism school of thought begins from the concept of filial piety (孝); a lack of belief in this notion will render its succeeding thoughts baseless and pointless. Confucianists are also pushed to believe that humans are easy to sway to disorder if there is no education, no structure to be laid down upon them. A Confucianism mindset can be observed to be pushed forth.



Daoism, right from the start, tells readers to believe in the Dao – that which cannot be named, fully understood, or comprehended; for the moment one claims to grasp it, it cedes being the Dao. There is worth in all being natural, and there is worth in moving as seemingly in a state of indifference. A Daoism mindset can be observed to be pushed forth.

Legalism believes men are inherently disordered to begin with, so there must be a strict yet delicate balance of rewards and punishment, with usually more weight on the latter. There are evils to be avoided, and all distractions must be avoided; for the priority will always be not just the self, but also the State that is being served. A Legalist mindset is also observed to be pushed forth.

The Art of War doesn't start from a presupposition or a pre-conceived mindset. It starts from observations of war, and this seems to be a much more universal topic to start from – where hasn't there been conflict, after all? It becomes universal, and this is why it easily could have been applied to fields outside of war, and even outside of human fields, as observed in this paper.

Even those who do not think of, or those who have not read the Art of War can be seen to apply it, and the whole of technology is surprisingly one of these instances. There may be more chapters that don't relate to technology than chapters that do, but it can be attributed to the nature of the subject – rather, the object – being a State and not a general that applies the Art of War. For all other four factors, for example, technology can still be seen to have manifested elements of the Art of War in its development. This



opens a new perspective in regarding entities that exist in the abstract or ideological sense – because they, too, can be understood in the context of the Art of War.

### References

Sun Tzu. (1963). *The art of war* (S. Griffith, Trans.). New York: Oxford University Press.

The art of war. *Chinese Text Project*. Retrieved from: <http://ctext.org/art-of-war>