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THE RISE OF THE MILITARY-ENTERTAINMENT COMPLEX

Will it make us indifferent to warfare?

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"Full Spectrum Warrior" is the latest PC combat simulator commissioned by the US Army as a learning/training tool to understand the fundamentals of infantry-level urban warfare. "Full Spectrum Warrior" was developed at the Institute for Creative Technologies (ICT), a research centre at the University of Southern California (USC), with close support from the US Army Infantry School at Fort Benning. ICT emerged as a result of a US$45 million contract awarded by the US Army to USC in order to forge a new kind of partnership – between the entertainment and defence industries. Not surprisingly, a slightly toned down version of the "Full Spectrum Warrior" has been released as a videogame for Microsoft's Xbox system.

Modeling and simulation technologies are common to both these industries, and as a result both have been trying to exploit each other's comparative advantage since the early 1990s by entering into mutually beneficial partnerships. The entertainment industry makes use of these technologies in such businesses as videogames, theme park attractions, entertainment centers and special effects for film production. For the military, these technologies provide comparatively inexpensive means of conducting joint training exercises, evaluating new doctrines and tactics and studying the effectiveness of new weapons systems. As a result, the flow of technology and talent between the military and the entertainment sectors has become bi-directional.

To be sure, the military-entertainment complex did not emerge suddenly after the end of the Cold War. For the past couple of decades, the commercial/civilian sector has pioneered and led technological innovation, including dual-use (civilian and military) technologies. Since the end of the Cold War, armed forces of the US and other advanced economies the world over have been looking at commercially available off-the-shelf components for military use for reasons related to cost as well as efficiency. Moreover, in the absence of the Soviet military competitor, the US defence industries entered the commercial sector seeking a larger market share. One of the outcomes of this spin-on of commercial technologies for military use and the spin-off of military technologies for commercial use was the rise of the military-entertainment complex.

Simultaneously, the adoption of modern technology into the US military has resulted in a change in the character and conduct of modern warfare. This was aptly demonstrated in the 1991 Gulf War. This war saw, among other things, the use of precision-guided munitions, unmanned aerial vehicles as well as the use of satellites in an attempt to establish information

dominance -- all the characteristics of a technology-driven military transformation. In fact, prior to the war, the US armed forces trained for it in mid-1990 at the US Central Military Command in Florida using a computer-based war game – *Operation Internal Look*. The success of the US military in the 1991 Gulf War made the impact of computer simulation on future planning and training exercises very apparent. Moreover, it was also realised that simulations were financially a lot less expensive than using military aircraft, tanks and other hardware for training in addition to being less politically sensitive especially for large-scale training manoeuvres.

However, the link between the commercial videogames and military training simulations was only realized roughly a decade ago. In 1996, the US Marine Corps Modeling and Simulation Management Office acquired the shareware version of id Software's shooter game *Doom*, and adapted it as a military fire team simulation. This was the first time the military harnessed a commercially developed simulation technology for its use. Since then, many such attempts have been made including Spectrum HoloByte Inc.'s modification of the *Falcon 4.0* flight simulator as the training programme for US F-16 fighter pilots. At the same time, a number of defence contractors modified and somewhat 'downgraded' their simulations for the commercial videogame market. For example, Evans and Sutherland modified their flight and tank simulators as arcade games.

Another important link that has emerged between the military and the entertainment sectors in the US is the one between the Pentagon and Hollywood. For Hollywood, the perks include military advice, personnel, and the use of advanced weaponry for movies. For the Pentagon, it is an excellent opportunity to inform the American public about the military. Moreover, the Pentagon gets an advance look at the scripts and can always negotiate changes. Beginning with the World War I Epic *Wings*, Pentagon and Hollywood have worked together on numerous movies that include *Top Gun*, *Pearl Harbor*, and *Black Hawk Down* in recent times. Interestingly, each arm of the US military has an office in Los Angeles today. Pentagon's association with Hollywood also helps its recruitment programme and boosts its image. It is interesting to note that in 2002, almost 30 screenwriters, directors, and producers met with US military officials at ICT to devise plausible ways in which terrorists might launch new attacks against the US. The aim was to create training simulators for the military based on these scenarios. Hollywood was invited to this session as a result of its ability to think out-of-the-box.

All of this has been happening against the backdrop of a technology-driven Revolution in Military Affairs (RMA). Ever since the 1991 Gulf War, the technology-driven military transformation has been progressing continuously in the US armed forces. According to Professor Eliot Cohen of Johns Hopkins University, this transformation is a product of massive changes in civilian society that include information technology and postindustrial capitalism. The US military is asking for C4ISTR, which stands for command, control, computers and communications, intelligence, surveillance, reconnaissance, and targeting -- features at the heart of network-centric warfare.

The US demonstrated its advanced and sophisticated military technology and capabilities in Operation Iraqi Freedom by overthrowing the Ba'athist regime in just 21 days, at a much lower cost than anticipated, and at a loss rate of fewer than one in 2,300 troops killed in action – one of the lowest ever for major mechanised campaigns. The reasons for the success of the US armed forces in the conventional part of the conflict included the speed and precision of US forces and its superior battlefield knowledge – all of which point towards a

mastery of information technologies. In fact, the US demonstrated its advanced technology at the very start of the campaign by attempting to decapitate the Iraqi regime through air strikes. On being informed of the target, the US dropped 900-kilogram precision-guided bombs from its F-117 Nighthawk stealth fighter-bombers, and more than 40 Tomahawk cruise missiles from its naval vessels including submarines in the Mediterranean Sea, the Red Sea, and the Persian Gulf. Though these strikes failed, and the US had to launch a combined air-ground invasion of Iraq, the US managed to topple Saddam's regime in a matter of days, thanks to the superior speed and precision skills of its information technology-based weaponry.

It must be emphasized that increasingly sophisticated weapons systems based on high technology used by the US have the potential to turn war into a 'game' or a sport, especially since soldiers obtain the training to use these computerised systems on simulators. As a result, actual operations in war are increasingly no different from the war games the soldiers play to train and plan. In many instances, the US soldiers do not see their targets directly. Instead they rely on computer-generated co-ordinates to lock their targets electronically and fire. According to Professor Christopher Coker of the London School of Economics, this "heralds the military's increasingly ironic alienation from the battlefield and from battle itself". Also, thanks to modern satellite-based telecommunications technology, the larger civilian society is today able to see the conduct of military operations in real-time that look no different from what they see while playing war-related videogames and Hollywood movies. These are especially important points since they tend to blur our understanding of the distinction between death and destruction in the virtual and real worlds.

We do not yet fully understand the wider socio-political implications of a generation growing up on war-based videogames and a movie industry that glorifies and glamorises war. It is important to understand the societal implications of battlefield automation from a moral perspective. Is the possession of technologically sophisticated weaponry likely to increase its use, especially against a society that lacks these systems? Answering this question urgently is very important for numerous reasons. To begin with, this could potentially lead to a societal indifference towards war in a state that possesses these systems and is exposed to heavy doses of military-related entertainment in the form of videogames and movies. Additionally, advanced economies the world over are trying to acquire these sophisticated technologies to transform their militaries while being exposed to Hollywood's war movies thanks to their global reach and appeal.

It must be pointed out that there is nothing morally wrong per se with the partnership between the military and entertainment industries since war is after all a national effort. Moreover, for reasons related to cost and efficiency, the militaries owe it to their citizens to harness the best that their money can buy. Also, there is nothing wrong with Pentagon's approach towards Hollywood, especially since the Pentagon does not define or dictate the kind of movies Hollywood should produce. However, given the increasingly technological sophistication of modern war, we owe it to ourselves to pause and debate the longer-term implications of a high-tech warfare given the military related entertainment that permeates our societies.

According to Tim Lenoir, there is a certain irony in the rise of the military-entertainment complex, as the military-supported games are considerably less violent than their competitors. Will this convert the youth of the advanced economic societies that can afford these technologies into a trigger-happy people? At the very least, will it de-sensitise them to the horrors of warfare by making them think that wars can be won quickly and at a

low cost of life (especially vis-à-vis their opponents)? These are some of the questions we need to start thinking about today.

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