Some Implications of Digital Humanities in Korea Military Academy Cadets’ Education

Dong-ha Seo
Korea Military Academy, PO Box 01805, Department of English, KMA, Seoul, South Korea
Tel: 82-2-2197-2735

Abstract:
2016 marks the 70 year anniversary of the founding of Korea Military Academy. It becomes possible, therefore, to document the constructive changes in KMA cadets’ education and to discuss these changes in relation to social and technological contexts. Thus, the purpose of this article is to generate educational insights on the cadets’ education undertaken by KMA and highlighting its formative experiences that shape the current science-focused cadets’ educational model. It also attempts to ask whether KMA’s educational system today sufficiently deals with humans that are considerably manifold and dynamic. In order to answer this question, firstly I have addressed this question via a metaphor derived from an analogy with a chemical structure, and have suggested that the newly launched ‘reading classics’ project in the form of digital humanities—despite a basic form of employment of technologies in the humanities—will considerably contribute to the development of leaders with problem-solving capabilities. I hope KMA model could serve as a better educational model at a time when all educational institutions are under pressure to adjust young students to life in an age of science and technology.

Keywords: Cadet Education, Digital Culture, Humanities, Educational Architecture

Lucretius, the Roman poet and philosopher of the fifth century, says in De Rerum Natura (or On the Nature of Things) that “the universe in its essential nature is composed of matter [atoms] and the void” According to him, the world consists of two realities: atoms (the smallest parts of things), and the void—what we call the empty space—which surround the atoms. Here it is useful to turn to Lucretius, because his dictum helps us understand the approach taken in this study. This does not mean that humans are made of atoms, but I do want to point out that there is a parallel between the world that suppressed Lucretius’s idea and the world in which we live today in the sense of attitude towards conflicting ideas. According to Stephen Greenblatt, such ideas anticipating modern science were “intolerable” in the early modern period, but the rediscovery of Lucretius by a Renaissance book hunter from Italy, Poggio Bracciolini in 1417 becomes now one of the most fruitful achievements of modern science. After six hundred years, everything changed. The virtual life of electronic images which consists of dots—what Lucretius calls atoms—dictates our everyday lives.

In the present-day digital culture, technologies are changing at a rapid speed, impacting on the way we live, work, and on the way we think. Such digital technologies as mobile phones, i-pads, and GPS devices are monopolizing our life, and their presence even seems natural and inevitable. Not surprisingly, they are generating a profound change in the way we engage with educational environments to develop our future officers. Responding to the problems in the rapidly changing society, the traditional educational approach, mainly based on the humanities, are forced to transform its discipline into a more scientific field of research, combining biological with social sciences for understanding humans. It is not surprising, then, to note that the present educational philosophy at Korea Military Academy (KMA) relies considerably on a scientific approach called the problem-solving model. This model, basically seeing humans as biological, social, and cultural species, aims to increase the probability of success for their actions in any given situation. Before looking at the current KMA educational model, it is important to overview the transformation of KMA cadet education in the past because it generates broad understanding of major and positive changes which have been made at KMA, and supports our present efforts.

Looking at the general historical development of KMA education and its current educational model plays as a reminder of what is not yet gained for KMA cadet education. The remainder of this study explores the extent

1 This paper is revised version of the paper presented at the 4th International Symposium on the Development of Military Academies, Zaragoza, Spain in 2015.
5 Ciriaco M. Arroyo, The Humanities in the Age of Technology (Pittsboro: Catholic University of America, 2002), 96.
6 For the current KMA educational model, see the below discussion and also Korea Military Academy, A Conceptual Guide for the KMA Educational Architecture, Report No.20140203 (Seoul: KMA, 2014).
7 For the general history of educational development at KMA, see Korea Military Academy. Fifty Years of Korea Military
to which digital humanities at KMA, despite being in its simplest form, can contribute to shaping a healthy cadet educational environment, and that KMA cadet education otherwise is incomplete.

I

Having said that, let us look at the brief history of the KMA’s educational models across the generations. This may be very short because of time and space constraints, however, it allows us to obtain an adequate assessment of our current education model. Though somewhat subjective, I suggest that there are three educational generations at KMA, and that looking at these three groups of people reveals much about the formative experiences which have shaped KMA’s educational approach.

The first generation was born between the 1940s and the 1960s, and this group came of age during a period of security challenges in Korean society, especially during the 1970s. As cadets in the 1970s, this generation witnessed and experienced an abortive attempt by a team of North Korean commandos to assassinate President Park, Chung-Hee, the Vietnam War, and the Panmunjom Axe Murder incident. Balancing its need of modernization with the current national security challenges, this generation was educated based on the system drawn explicitly from the United States Military Academy example as the foundation for KMA curriculum.8 The most singular characteristic of this system—called the “Thayer System”—was the emphasis on mathematics, science, and engineering (in figure 1).9 Following the Thayer system, KMA also created a system that combined academics, discipline and military training to equip KMA cadets with the latest in military techniques, weapons and equipment, and to produce an officer of strong moral character, effective decision-making abilities and scientific expertise. During this time, KMA, emulated the USMA model which was profoundly influenced by the classical notions of education—most clearly set forth in Plato’s Republic—could emphasize intellectual education (education with modern scientific standards of intellectual inquiries) and character development.10

Figure 1. KMA 1st generation. Source: Korea Military Academy, 50th Anniversary Photos (Seoul: KMA, 1996), 60.

The next generation, commonly known as “Generation X,” was born between the 1960s and 1980s. Since the Republic of Korea’s international exposure in the 1980s, such as hosting the 1986 Asian Games and the Olympics in 1988, KMA prepared its cadets for future leaders with global leadership. Therefore, since 1981 which marked the first comprehensive educational reform, KMA improved English (Foreign)-language education and emphasized computer and information technology in its academic curriculum.11 It was during these periods that Computer-Based Training (CBT) became ubiquitous throughout the academy. The English department, for example, developed a training program for military English, allowing its cadets access to the

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10 Core courses offered to the 1st generation cadets were Civil Engineering, Mechanics, Electricity, Ordnance, Physics and Chemistry, Philosophy, etc. For the history of curriculum changes at KMA, see Hwarangdae Research Institute, Academic Curriculum Revision for the Year 2004, Report No.20040228 (Seoul: KMA, 2014), 28.
11 Korea Military Academy. Fifty Years of Korea Military Academy’s History, 1946-1996 (KMA, 1996), 583-84. During this period, KMA education decreased the number of required subjects and increased the number of elective courses, allowing its cadets to have more freedom of choice in what they studied. For example, in 1995 KMA under the direct supervision of the Army Chief of staff increased the total credit hours for English and computer science.
learning resources more freely and effectively. Then, a few years later, as computer technology improved, KMA established a campus network system within its campus and introduced Web-Based Training, allowing its cadets to access language training outside the classrooms or computer-labs (in figure 2).

Figure 2. Military English practice through CBT. Source: KMA English Department, Home Page, May 16, 2015, http://english.kma.ac.kr/etc/MiliEnglish/Ebook/start.htm.


The last generation, called “Millennials,” started their careers as officers in the 2000s. As lieutenants and captains, many from this generation have experienced global diversity through joint/combined exercises abroad, military education abroad and Peace Keeping Operation missions. They are comfortable with computers, the Internet, and other digital devices. They are chatting with international colleagues through email, instant messenger and Facebook (in figure 3).

Figure 3. KMA 3rd generation. Source: KMA, Prospectus, (Seoul: KMA, 2014), 12.

Under these circumstances, KMA graduates are well equipped with communicative competence, practical knowledge and the skills required in the field of combined operations or peacekeeping operations. But in a complex, changing world, being criticized for its education provided to the cadets is generally speaking excellent but practically speaking not satisfactory, KMA has insisted on the development of reasoning and problem-solving skills on a practical level as many military academies do.12

This short overview tells us that KMA has always been keen to ensure that its graduates have had

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opportunities to develop appropriate knowledge and technology skills and use them for the challenges they face.

We turn now to a recent agenda of educational transformations at KMA (in figure 4).

The future that we will face is much deeper and more complex than the challenge we are facing now. Because of that, KMA’s overarching educational goal: “cultivation of capable leaders who serve and defend the nation” has been redefined by adding “leaders with outstanding problem-solving skills.” The so-called “KMA Educational Architecture” was set out in 2012 to review the entire process of how its cadets had been educated. This architecture visualizes a series of specific goals in five areas: Intellectual capabilities, Military capabilities, Physical capabilities, Social character, and Values & Ethics. These categories do not mark new areas in the cadets’ education, but they have been (re)affirmed after a careful review of past experience and estimation of future demand. According to A Conceptual Guide for the KMA Educational Architecture (2014) which envisions future KMA graduates as elite officers in the Army, there are two fundamental factors for the cadets that they should master during their four-year education in order to be elite officers. One is “character” and the other is “capabilities.”\(^{13}\) It also explains that KMA’s educational structure—as its name represents—is deliberately made, in accordance with Army leadership, as if we are building a building. As we can see from the figure above, KMA defines character as one shaped by the realization of the five Army Values (i.e. Loyalty, Courage, Responsibility, Respect and Creativity), while capabilities are the necessary skills and professional knowledge necessary for shaping an effective leader. Within this context, the KMA educational architecture provides us an integrating concept which identifies five academic areas and four-fold attitudes associated with Army leadership. What is significant in this architecture is that compared to the past approach to cadet education, not only can this architecture unite the efforts of all individual components of KMA with one common goal, but also explain how each area and attitude works together coherently as a whole.

II

What is more significant for me here, however, is that this cognitive framework of each educational component appears as if we are drawing a simple chemical structure. For example, the circular line representing the KMA motto (Wisdom, Integrity, and Courage) does not come in linear terms, but gathers around a center formation of five academic areas around four attitudes. Individual cadets refine and develop themselves through the acquisition of new knowledge and skills, the promotion of physical fitness, and the internalization of core values. But there is in this universe I find a space in which we need to “swerve,” as Lucretius puts it, or interact.\(^{14}\)

In order to go further into the discussion of digital humanities in the context of the Lucretian atomic swerve, it may help you to move from the abstract level of discussion to the concrete level by looking at two examples of how individual components in the educational architecture work. For the first example, consider a group of cadets who take a computer science or war game course. In it, they learn and test unit tactics in the virtual world with Army Tactical C4I System (ATCIS), until they find out the best way to fight. In a similar manner, cadets in

\(^{13}\) Korea Military Academy, A Conceptual Guide for the KMA Educational Architecture (Seoul: KMA, 2014), 12.

\(^{14}\) Lucretius, On the Nature of Things, 41.
war history, using the extraordinary capacity of 3D MAP, improve their understanding of past military actions, interacting with virtual impression as close as possible to actually being there without real presence (in figure 5).

Figure 5. KMA cadets in war game course and use of 3D map for war history course (Photographed by Dong-ha Seo, April 3, 2015).

These intellectual capabilities are consolidated by military training during the summer. For example, with field training at Korea Combat Training Center (KCTC)—where soldiers, and cadets can verify the simulated model with the real field action of military units—KMA cadets can master small unit tactics acquired from classroom learning. To have strong physical strength and mental power essential to the preparation of military skills, the cadets are required to improve their exercise capabilities and build endurance by participating in sports. Besides, they learn the ideals of fair play and teamwork through the appropriately designed competition.

For the second example, let us see the extent to which KMA cadets learn to internalize Army culture and values. They are taught to understand professional military ethics in the classroom, and internalize it by practicing leadership skills through assuming many roles in the cadet chain of command. As for solving military-related moral problems, it is important for them to have many opportunities to have contact with active personnel, since the cadets have little experience of actual service in the field. They also participate in the so-called System for Multi Level of Observation of Groups (SYMLOG) program to improve leadership, teamwork and interpersonal effectiveness (in figure 6).

Figure 6. KMA leadership assessment, using Intranet Questionnaires.

15 The Department of War History’s establishment of new war history laboratory, which will provide our cadets with simulated environment for studying war history, is underway.
As its name may suggest, it is in many ways associated with a computer. In this manner, the KMA educational architecture ensures that its cadets are effectively and systematically educated and trained.

These examples show that the architecture serves as a guide for making a decision from the military perspective, and for providing the courage and will to act in accordance with their conscious. A question, then, may arise here. Can this digital/technology-oriented educational system sufficiently deal with humans that are considerably manifold and dynamic? Certainly digital-oriented technology, which we organize and interface with the current configuration of systems like SYMLOG can capture human activities, but cannot capture the creative imagination of human beings. In fact, in the architecture we can find reflections on humans’ mortality, but it does not speak to us about another important aspect of human nature such as pain, anger, fear, and anxiety.\textsuperscript{17} I do not mean imagination here as the romantic sense of imagination and sensibility, but the imagination that enables KMA cadets to imagine how scientific, effective, or digital approaches and human experiences collaborate together and develop their character in ways that our technological environment cannot do. For example, when we work to achieve the most effectiveness with the troops and equipment through a war game, soldiers, both friendly and enemy are transformed into symbols on a computer screen. Under these circumstances, we tend to see the enemy on the computer screen as a digital image and use heavier weapons such as smart bombs, heat-seeking missiles and other devices against them without a moral sense of guilt.\textsuperscript{18} In a similar manner, taking images of friendly forces that appear or disappear on the computer screen and give us a virtual war without real casualties, we may be ignorant about the human costs of war that is beyond any understanding or measurement. It is hard to argue some benefits and conveniences afforded to us by new technologies, but it is also true that, as Jean Baudrillard argues through his concept of simulation, we should be aware that “war is not measured by being waged but by its speculative unfolding in an abstract, electronic and informational space.”\textsuperscript{19} We should pause to ask whether or not we were aware of the limitations of the digital world when we built this architecture,

The concerns of military ethics are not only to answer the questions of what is right and what is good, but also to express the anxiety about human costs during a war. Since military ethics is in nature prescriptive rather than descriptive, we use case study methodology or a series of well-chosen vignettes that exemplify application of ethical standards to practical problems of the sort our cadets will encounter as officers.\textsuperscript{20} Major Jae-ku Kang’s vignette is the most familiar example at KMA that portrays the ideal of selfless sacrifice with a reality absent in the prescriptive manual of the military ethics.\textsuperscript{21} Like literature, this kind of vignette well embedded in narratives helps us to understand the context in which an ethical issue arises. However, it is misleading to view a vignette as a literature per se because it is, like history, an account of a particular case from which we may learn a lesson. Taking Philip Sidney’s dictum that poetry (or literature) is more philosophical than history (or a case-study) because it is not restricted to what actually happened but, dealing with universals, necessarily is more nearly perfect or ideal.\textsuperscript{22}

Although we can make an ethical choice or a decision through examining particular or individual instances, we need to go beyond what particular or individual instances teach us through reading about universally exemplary individuals in literature, such as Homer’s Achilles and his cruelty and inhumane element or Shakespeare’s Henry V and his decision to kill the prisoners, upon whom the cadets can model themselves.\textsuperscript{23} Just as In fact, my students addressed the importance of maintaining cultural awareness and building rapport with local people during military activities from their reading of T. E. Lawrence’s \textit{Seven Pillars of Wisdom}, it is

\textsuperscript{17} My English Major cadets read Machiavelli’s \textit{The Prince} in their International Affairs course, focusing on the importance of self-presentation or seeming. Without knowing what the real essence of humanity is, they are only deemed worthy of being called “a man of compassion, a man of good faith, a man of integrity, a kind and religious man.” See Niccolò Machiavelli, \textit{The Prince}, trans., George Bull (Harmondsworth, Penguin, 1981), 101. Such emotions as fear, anger, and anxiety are simply dismissed as womanly and weak in our military culture. As Nancy Sherman and Jonathan Shay argue, tears, along with expression of fear and sadness should be considered acceptable for military leaders who will lead their soldiers in both peace and war. See Nancy Sherman, \textit{Stoic Warrior: The Ancient Philosophy behind the Military Mind} (Oxford: Oxford UP, 2005), and Jonathan Shay, \textit{Achilles in Vietnam} (New York; London: Scribner, 2003).


\textsuperscript{21} The KMA graduate epitomized the military spirit. When his soldiers exercised in throwing a hand-grenade, a soldier mistakenly dropped a grenade. This hand grenade fell in the middle of them. He covered it with his body and died a glorious death, after rescuing all his men.

\textsuperscript{22} Philip Sidney, \textit{An Apology for Poetry (Or The Defence of Poetry)}, rev., R.W. Maslen (Manchester: Manchester University Press, 1989), 92.

literature, despite the fact that it seems practically impractical, that offers a fictive rendering of what may happen in reality in which much reasoning and learning occurs.\textsuperscript{24}

III

As seen from the cases of George C. Marshall and Douglas MacArthur, reading is one of the most important and necessary acts of an elite officer.\textsuperscript{25} How, then, can we allow the cadets to read literature in their busy lives? As the answer to this question, KMA has tried to incorporate classical literature into its courses. The choice at KMA now is digital humanities, based on the fact that digital humanities have succeeded in looking ahead to see future needs.\textsuperscript{26} Due to the conviction that the humanities seeks understanding of ourselves, expressed or interpreted in language, art or any other form of representation, they have been regarded as unfriendly towards scientific methodologies. Nevertheless, I, as a Shakespearean scholar, have benefitted hugely from digital technologies such as Online Shakespeare Corpus, digitized texts and images of the early modern period, and increased accessibility to performance archives.\textsuperscript{27} Since our familiarity with the use of digital content grows, our scholarly considerations should be drawn to the digital technologies as an object of interest from cadet education’s perspective.

The ambitious project called “KMA reading program” recently undertaken earlier this year is a positive response to this situational pressure. This reading program has been created as a project led by the Departments in the Humanities Division at KMA, and collaborated with the Departments of Electronics & Computer Science. This program for all cadets is still in progress and yet aims to expand the cadets’ understanding of the humanities and the sciences through readings: readings of sixty four classics before graduation (in figure 7).

![Figure 7. Home page of KMA’s Reading Program. Source: KMA Reading Program, home page, 16 May, 2015, http://portal.kma.ac.kr/front/main/index/mainIndex.do?clubId=reading&clubName=육사 독서 프로그램.](image)

There are well-established reading programs such as “Great Books” at Columbia and Chicago, and “Reading in Classics” at Seoul National University. However, what is unique in KMA’s program is that its cadets’ readings are guided by volunteer mentors (including faculty members and staff of KMA) in each proposed book.

\textsuperscript{24} One of the texts I use for International Affairs course is T. E. Lawrence’s \textit{Seven Pillars of Wisdom}. During the course, my student read it from diverse perspectives such as military history, leadership and guerrilla tactics. See T. E. Lawrence, \textit{Seven Pillars of Wisdom} (London: Jonathan Cape, 1973).

\textsuperscript{25} For the importance of reading, see Jörg Muth, \textit{Command Culture: Officer Education in the U.S. Army and the German Armed Forces, 1901-1940 and the Consequences for World War II} (Denton: University of North Texas Press, 2011), 141 and Edgar Puryear, \textit{American Generalship: Character is Everything; The Art of Command} (Novata: Presidio, 2001), 142-87.

\textsuperscript{26} The term “digital humanities” was traditionally interpreted as “humanities computing” or “computational humanities” which meant the application of computing technologies to research the subjects in the humanities, but has now become a widely used concept in a computer-friendly culture The first usage of term “digital humanities” was found from Ray Siemens and John Unsworth’s \textit{Companion to Digital Humanities} (2001). In 1949, Roberto Busa, generally considered the founder of the so-called “humanities computing,” started collaborating with IBM on the creation of a computational index variorum of the works of Thomas Aquinas.

\textsuperscript{27} As for the potential of digital technologies in Shakespeare studies, see Christie Carson and Peter Kirwan, eds., \textit{Shakespeare and the Digital World} (Cambridge: Cambridge UP, 2014).
and sharing their experiences in discussion afterwards with the general advantages of using the living environment at KMA where its cadets live together in the dormitories on campus during the week.

Another strength of this program is that it helps mentors use database technology to record the cadets’ performance. But this recording and databasing is not intended for evaluating, but for encouraging a general discussion to direct a close and critical reading (in figure 8).

Reading materials are not necessarily limited to printed books. They can be film versions of, or e-books of classics that provide unprecedented opportunities for KMA cadets to engage in problems they will encounter in future. Besides, unprecedented open formats like Massive Open Online Course (MOOC) allow KMA cadets to engage deeply with reading materials and other resources outside the formal learning environment. This program fills an existing space between the science-oriented five academic areas and four attitudes prescribed in theory with a feedback space, physical or virtual, where ideas cross from one cadet from another.

Taken together, seeing that the latest trend in higher education is maximum interaction between technologies and students, now is the time to more generally ask what we can do, or “swerve” to fill the void in which to explore the value of humanities in the digital environment. In so doing, we are able to overcome a skeptical view of the current digital humanities that the study of humanity is deemed only for human comprehension.28 As its name presents, Korea Military Academy has produced unique combinations of military and academia. As its history has proved, educational change can undergo changes without destruction. KMA model, combining of scientific approach towards education and humanities productively together, allows us for continual change without any loss of identity. So creating the humanities in a digital culture in an experimental context, we can enrich the lives and the minds of KMA cadets, and open up their capabilities more broadly than ever before.

References

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