TOK Practice Essay – – Jerry Jiang

Essay Topic: "Technology provides ever-expanding access to shared knowledge. Therefore, the need to assimilate such knowledge personally is relentlessly diminishing." To what extent do you agree with this statement?

In this fast developing society, people have easier access to shared knowledge. This might influence how people assimilate knowledge. In this essay, I am going to look into the question: To what extent does the change in modern world technology influence our assimilation of knowledge? In my opinion, the way people assimilate, which means input and absorb their understanding of the knowledge is not largely influenced by technology.

I'm going to discuss the statement around the area of knowledge of math. One important knowledge question to think about before getting into it is: what is the need to assimilate knowledge specifically within math? In math, the need to assimilate knowledge personally is gained through solving problems, either on paper or real life, for both students studying in math and people with jobs related to math. Some examples of the shared knowledge provided by technology are solutions to problems posted online or varied theorems classified and listed on websites such as Wikipedia. While this knowledge might help us obtain answers in mathematics easier, it doesn't teach us how to solve the question ourselves, thus the need for assimilation of knowledge is not to a large extent influenced. I'll use what we are doing in Math now to elaborate on this point. In the chapter of conic sections, we have studied the possible products of a plane intersecting a cone, which are ellipses, parabolas, and hyperbolas. In a typical question, we might be asked why parallel light shooting towards a parabolic shaped mirror will all meet on the focus of the parabola. The way we do this is by looking at the angle of incidence and the angle of reflection. If we are able to equal the two angles, then we can say that the light is traveling on the path that we want. Bearing that in mind, we start creating tangents on the parabola, extending them and pass angles around through two corresponding angles of parallel lines. The core of the solution is to see that a point on the parabola is equidistant from the focus and the directrix so that the two sides within a triangle having the same length can lead us to a pair of angles (which is the angle) with the same value. Now, let's look at how might technologies nowadays help us solve this question. Different characteristics of a parabola are shared online, along with some similar problems which might provide insights toward the core of the solution, but probably that's all the access shared knowledge can provide. In order to solve the problem, you still need to find the relationship between the known conditions, the part of the problem where the major challenge lies, which is mostly the same procedure as when the shared knowledge access is not so widespread. However, as the varied platform like the internet become more accessible for program writers, all kinds of calculators, graphers, and simulators are available through technology. You might ask: since there's some possibility that a full solution of the light reflection problem above is available online, and there might be applications like Geogebra

which help you see how geometry functions, why wouldn't these change the need for assimilation of knowledge? In response to that, I this only proves to be true for simple questions. The need for exams and requirement of assimilation in math we are having now in the education system comes from the real-life problems that need to be solved and the world-class theorems need to be proved. And currently, technology can't help us do that. In light of that, I'd like to ask another knowledge question: Is it possible that as time passes, technology will develop and the access to shared knowledge will be so great that there will no longer be for humans to solve problems?

Now I'm going into the AoK of art. As in the previous paragraph of math, an important knowledge question is: what is the demand of knowledge acquisition specifically under the AoK of art? The need to assimilate knowledge comes from the cause that we need to create pieces of arts and analyze them so that varied goals of art are met, aesthetic beauty, technical mastery, etc. The access of shared knowledge online related to art, including existing art pieces, opinions, analysis of art pieces, and possible techniques are experiences of art. Compared to the process you do after you've assimilated the knowledge, which is understanding the basic technologies and merging your own understanding on the branch of art you are working with into the product, the access of shared knowledge mentioned above might only help you at the beginning, since either good pieces of artwork or analysis with particular insights require not only skills related to the topic but also your personal experiences and thoughts, which can only be obtained by personal approaches, such as immense practices. I'll take the branch of music as an example. One of the most important parts of music is the genre of classical pieces. There're a lot of musical terminologies related to this area that I myself as a music student need to know for music assignments. In music classes, my music teacher introduces us to the important techniques composers used during the Baroque period, including basso continuo, terraced dynamic, homophonic and polyphonic textures, etc. It's quite easy to understand and identify them from the recording of the classical baroque pieces, but when it comes to my task of composing a piece with baroque characteristics, it's a completely different story. It took me much more effort to get my own experience of utilizing these techniques, including listening to more than 30 classical pieces, inserting notes on the music software and asking for advice from other music students. As you can see, though there was access to shared knowledge, it did not help me a lot. You might say that there are now available progressions and written patterns of melodies and harmonies on websites such as musescore[1], but the help from that is still limited. Different from the case of mathematics, the demand of art pieces created by humans is, in my opinion, indispensable. While facts can be completely calculated with advanced technologies in the future, art pieces are the representation of the feelings deep inside artists' hearts, an essential part of cultures since ancient times. That's why I don't think there's a big possibility that the need to assimilate knowledge in the AoK of art will be changed even in the future.

[1]A popular music score writer software, with a lot of resources of existing scores made by others on its official website.

In conclusion, I disagree with the statement that the increased of access to shared knowledge nowadays changes the need to assimilate knowledge. Also, as I discussed in both body paragraphs, the need to assimilate knowledge might, to some extent, change if the technologies are so advanced that they alter different fields. It will be interesting to look back on this question in the future as technologies develop in ways that often surprise us.[2]

[2]Word-count by **texcount**: 1214.