

Learning English Vocabulary through VOA News Lessons: Being Exposed to Authentic Material or Electronic Colonialism

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Abstract

Teaching and learning languages via the Internet is becoming increasingly common all over the world and therefore, the experts growingly debate around the positive or negative effects of online education. The present study aimed to critically investigate into science and technology lessons of the VOA English Learning Website in a two-year interval, which claims to teach new words and phrases through the authentic VOA world news. Applying van Dijk's (1998) *Ideological Square Model* of CDA, the researchers attempted to critically analyze the representation of the key term *the United States* within the collected VOA news story transcripts in order to observe whether the Website was trying to manipulate the learners' minds through in-group favoritism and out-group derogation. The findings revealed that the VOA online lessons promoted certain American political, economic, cultural, social, and ideological values through particular discursive structures that tend to describe in-group members in a positive or at least neutral manner. Thus, as McPhail's (2006) *Electronic Colonialism Theory* assumes such free online lessons on the VOA Website, which is a core country multimedia giant, struggle to convert and capture the attitudes, desires, beliefs, faiths, lifestyles, and consumer behavior of the other countries. Therefore, it is highly recommended that English teachers and learners try to inspect the content, reflect on the purposes, and evaluate the merits of similar online authentic materials before and while applying them to facilitate the language learning process.

Keywords: Critical discourse analysis, Electronic Colonialism Theory, Ideological Square Model, Online education.

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INTRODUCTION

Online education has recently become the favorite mode of instruction and self-study all around the world owing to its countless features and matchless opportunities for both learners and teachers (James, 2008). Applying this technology to learn English language is also warmly welcomed by scholars, teachers, and learners in this field, and its uses and potentials are growing rapidly and appreciated massively. However, there are some controversies among authorities considering the profits and perils of online language learning. While some researchers strongly believe in flexibility, accessibility, and convenience of online learning, some others discuss the risk of online education for the learners' efficiency, motivation, and self identity (Al-Maqtari, 2014).

According to Polate (2003), although the Internet offers very unique opportunities in the realm of education, it is very important "neither to overestimate the role of the Internet in education nor to underestimate it" (p. 6). McPhail's (1987) Electronic Colonialism Theory (ECT) declares that when one of the core countries exports technology to the periphery countries, they carry with them a broad range of economic, social, cultural, political, ideological, or religious values and in the long run they will extend the "markets, power, and influence" of that powerful media empire (McPhail, 2006, p. 19). ECT predicts that continuous exposure to the core communication products will lead to the formation of a new mentality that will possibly "displace or replace indigenous cultural products with foreign alternatives and values" (McPhail, 1987, p. 19). Since, the Internet is an information superhighway which is highly predicted to be able to compete with and work parallel to traditional campus learning in the near future, more critical studies on the advantages and disadvantages of online education would be necessary. The teachers and learners would benefit from the findings of such research studies in order to develop critical thinking to be able to adopt online materials wisely and adapt them effectively to achieve the desired goal.

Scholars who have conducted researches in this area keep two opposite stances: the positive vs. the negative effects. On the one hand, advocates of Internet mediated language education reported positive effects on English learning achievements (Cai, 2012; Ducate & Lomicka, 2008; Jamalifar & Chalak, 2014; Haron, Zaid, & Ibrahim, 2015; Hjeltnes & Hansson, 2005; Mak & Coniam, 2008; Mohammadi, Ghorbani, & Hamidi, 2010; Nami & Marandi, 2013; Richardson, 2006; Shopova, 2014; Westberry, 2009). On the other hand, critics of English learning through the Internet suggested negative points like the learners' losing their motivation (Hartnett, St. George, & Dron, 2011; Phipps & Merisotis, 1999), the low efficiency in achievements (Ghaffari & Emami, 2011; Hildebrandt & Teschler, 2006), the colonial ambitions of the Western owners of the Internet (Anbarin, 2009; Bonachristus, & Ojiakor, 2012; Kasaian & Subbakrishna, 2011; Kilroy, 2008; McPhail, 1987, 2006; Reeder et al., 2004; Sadeghy, 2008; Soleimanifard, Behnam, & Ahangari, 2020; Warschauer, 2000), the threat of the Internet to self-identity (Anbarin, 2009; Cryle, 2002; Kasaian & Subbakrishna, 2011; Sadeghy, 2008), the formation of negative attitudes toward other nation's values and norms (Karimi & Marandi, 2014, 2020; Poorebrahim & Zarei, 2013; Shojaei et al., 2013), and inequality of educational opportunities and e-learning hegemonies (Marandi, et al., 2015; Marandi, 2017).

Remembering that the Internet is a world without borders and information is shared on a massive scale and certain groups might utilize this ease of transmission to spread certain ideas, critical analysis of the learning materials from the free English learning Websites like VOA would be generally beneficial. The significance of the study increases as Karimi (2014) reported that the VOA English learning Website is one of the four most popular English educational programs in Iran. Moreover, the fact that using VOA lessons is completely free of charge while the cost of Website development and maintenance is very high, the Reeder, Macfadyen, Roche, and Chase's (2004) warning about the Internet's high potentiality for spreading the Western values throughout the world and MacPhail's (1987)

ECT predictions as explained above would justify critical discourse analysis of these learning materials. Therefore, this study attempted to investigate whether the *Science and Technology* news lessons of the VOA English learning website which claim to teach vocabulary, aimed to promote electronic colonialism through finding manipulative linguistic structures that might intend to export American values and norms. The results were expected to help educational policymakers, curriculum and syllabus designers, material developers, and English teachers and learners, disclosing the possible economic, ideological, cultural, religious, and political consequences of using this educational website.

LITERATURE REVIEW

Globalization, the Internet, and online education have recently raised new challenges for English language learning all over the globe. According to Sambrook (2003), “Any learning activity supported by information and communication technologies” is a kind of online education (p. 507). Searching the web, joining language learning groups, participating in text/voice/video chats with native/nonnative speakers, online classes, e-conferencing, employing online dictionaries/translators, etc. are a few online activities to list. The accessibility of educational facilities, quickness of information retrieval, availability of huge up-to-date resources, and accommodation of different learning styles all add enthusiasm to online language learning.

The critical investigation of online English education appears to be a new domain that is mostly connected to hegemonic goals of the developed countries. According to Kwet (2019), a new kind of colonization is taking place globally at the present time in which “instead of the conquest of land, Big Tech corporations are colonising digital technology” (p. 4). Google, Apple, Microsoft, Facebook, Amazon, and many other American multinational companies are among those corporations, Kwet (2019) listed as the ones attempting to dominate the whole world. McPhail (2006) also

believes multimedia agencies (CNN, BBC, and VOA) and global wire services (Reuters, Associated Press, and Agence France Presse) as major components of the global communication system, engage in the promotion of a core-based focus in reporting values both directly and indirectly. Atikur Rahman (2014) in his study on globalization and cultural transformation in Bangladesh, found that globalization touches all human lives and plays strong role in transformation of moral values and lifestyles in Bangladesh as well as other developing countries. Hasanzadeh and Alizadeh (2018) also believe that the teachers' and learners' second identity is shaped and constructed while teaching and learning a second or foreign language through evoking "a sense of attachment to a group or groups with similar cultural values and beliefs" (p. 115).

Ess (1999) states that the lack of an appropriate theory of culture hinders the analysis of the complications of virtual cultures and virtual communities. Reeder, Macfayden, Roche, and Chase (2004) conducted a multidisciplinary study of online adult course in Canada to explore cyberspace values, cultural gaps, and variation in participation. They suggested that there are essential factors in intercultural communication that depend on the "very essence of the way we construct our worlds" and such factors can increase or decrease the success of online educational programs. (p. 101). Anbarin (2009) distributed questionnaires in order to study the impact of the Internet on the cultural identity of Iranian students and reported that the Internet can be a threat to self-identity by weakening the cultural identity of its users. In a similar study, Kasaian and Subbakrishna (2011) distributed questionnaires among Iranian high school students' parents. The findings showed that parents worry about the possible adoption of the western lifestyle and manifestations of incompatible western culture, and marginalizing the local identities of their children.

Karimi (2014) studied the promotion of electronic colonialism in learning English through VoA, Englishcentral, Englishtips, and BBC English learning Websites. Applying Van Leeuwen's (2008) *Social Actor Network* in order to critically analyse the learning materials, she concluded

that these materials could promote the formation of negative attitudes toward the Iranian political affairs, cultural norms, and ideological values. Karimi and Marandi (2020) found that the BBC Learning English utilized “different discursive mechanisms and hypertextual techniques” to represent Iran in unfavorable manners (p. 30). Applying Van Dijk’s (1998) *Ideological Square Model*, Soleimanifard et al.(2020) attempted to critically analyze the representation of Britain within BBC news lessons in terms of their hidden potential curriculum. The findings revealed that BBC Internet-mediated lessons have shown manipulative purposes in choosing particular news stories in order to obtain illegitimate domination through the formation of biased mental models offered by emphasizing Britain’s superior scientific and technological capabilities, British nations’ ideal and high quality living conditions, and the country’s political power in Europe and the globe.

To sum up, the major online educational Websites are located in a few wealthy core countries, while the learners are scattered all over the world with different linguistic, economic, social, political, and religious backgrounds. Considering the findings from the previous research studies and also ECT’s prediction that the differences will decrease in strength or intensity in favor of the producing countries, global learning English through VOA Website is suspected to deliver and distribute US culture, norms, and values in the entire world. Therefore, the present study attempted to investigate whether the online educational materials of this website aimed to promote any aspect of electronic colonialism which is detailed below.

Electronic Colonialism Theory

McPhail (1987) introduced the concept of electronic colonialism as the dependency relationship established by the “importation of communication hardware, foreign-produced software, along with engineers, technicians, and related information protocols, that vicariously establish a set of foreign

norms, values, and expectations which in varying degrees, may alter the domestic cultures and socialization processes” (p. 18). He believes that the electronic colonialism of the twentieth century is just as horrible as mercantile colonialism of the eighteenth and nineteenth centuries, as it causes the “displacement, rejection, altering, or forgetting” of domestic customs (p. 18).

Due to the media’s expanding role, ECT predicts that shared media culture will influence global perceptions and values increasingly and media systems that attract heavy users will displace or alter previous cultural values, habits, activities, or family rituals. According to McPhail (2006), multimedia empires utilize a vast range of ideological and cultural products like music, movies, series, news stories, books, magazines, and also the Internet to encourage their own country’s “tastes, values, mores, history, culture, and language around the world” (p. 60). Considering the one-way flow of media messages from the core to peripheral nations, the necessity of close investigation of the online English educational materials and the purposes of the producing nations and the influences on receiving nations becomes more crucial.

Several studies have critically investigated the impacts of online English learning Websites on Iranian learners’ perceptions of the producing country’s values (Kasaian & Subbakrishna, 2011; Soleimanifard et al., 2020) and their own country’s values (Anbarin, 2009; Karimi, 2014; Karimi & Marandi, 2014, 2019). Marandi (2017), however, suggested more researches in this regard to achieve the “equality of educational opportunities, intercultural understanding, and mutual respect” (p.2).

Ideological Square Model

Van Dijk (2001, 2005, 2006a) believes those who are able to influence and control people’s minds can indirectly control their actions through manipulation as well. Manipulation is an important notion in van Dijk’s critical discourse analysis (CDA) theories and he defines it as “the usual

forms and formats of ideological discourse, such as emphasizing Our good things and emphasizing Their bad things” (van Dijk, 2006b, p. 1). This is the heart of his popular ideological square of positive self-presentation and negative other-presentation which aims to account for the ways discourses represent groups of people in a process of polarization between *Us* and *Them*:

1. Express/emphasize information that is positive about Us.
2. Express/emphasize information that is negative about Them.
3. Suppress/de-emphasize information that is positive about Them.
4. Suppress/de-emphasize information that is negative about Us. (van Dijk, 1998, p. 267)

This is very typical in the “biased account of the facts in favor of the speaker’s or writer’s own interests, while blaming negative situations and events on opponents or on the Others” (Van Dijk, 2006a, p. 373). However, ideological discourse structures should not always reflect the polarized relationship between opposed ideological groups. According to van Dijk (2006), “if people talk as group members, in terms of ‘we,’ and positively evaluate their own actions, norms and values, and defend the resources or other interests of their group, then such talk will also usually be ideological” (p. 734).

Hence, van Dijk’s *Ideological Square Model* can be a good choice for exploring the deliberate manipulations of the media messages, political speeches, educational materials, and the like. The present study utilized this model to find out whether the free English lessons of the VOA English learning website presented materials that reflected positive self-presentation and negative other-presentation.

PURPOSE OF THE STUDY

In light of the theoretical and empirical background reviewed above, the present study attempted to investigate whether the *Science and Technology* lessons of the VOA English learning website which claimed to teach new

words and phrases through authentic world news stories involved ideological discourse structures that aim to promote electronic colonialism. Therefore, this study aimed to answer the following question: “What are the textual manifestations of electronic colonialism in the *Science and Technology* lessons of the VOA English learning website?”

METHOD

Corpus

The corpus of the present study was taken from the Voice of America (VOA) (<http://learningenglish.voanews.com/>) which is VOA’s multimedia source of news lessons for millions of English language learners all over the world. VOA English learning materials are completely free and classified into three levels: level one articles for beginning English learners in which there is one idea per sentence; level two articles for intermediate learners in which complex sentences are used and a number of quizzes test the learners’ understanding; and level three articles for advanced learners that are unabridged (learningenglish.voanews.com).

In order to collect the corpus from VOA Website, all the intermediate level ELT content from the *Science and Technology* section published from the beginning of the year 2016 to the end of the year 2017 were archived. The reason for this selection was the fact that only intermediate level *Science and Technology* and *Health and Lifestyle* lessons included the complete news video stories from VOA news, while the remaining intermediate, beginner, and advanced levels were working on other types of texts. This section claims to teach English words and phrases within everyday world news about new developments in science, space exploration, environment and technology.

Therefore, 192 news stories with their transcripts, including 112520 words in 237 pages were archived and then searched both electronically and manually for spotting the news transcripts that contained the key term *the United States* and its’ directly and indirectly related terms. 124 out of 192

news stories contained the key term and its related lexical terms. The target terms were repeated 386 times altogether in these 124 articles: US (10), U.S. (124), USA (0), the United States (54), America (34), American (101), President Obama (9), President Trump (29), White House (2), and Washington (23). For this study, the discourses of these 124 news video stories related to the United States were critically analyzed using van Dijk's (1998) *Ideological Square Model*.

Analytical Framework

Van Dijk's (1998) notions of manipulation and ideological square were applied to analyze the data. Since the manipulation is a social practice of power abuse and the ideological square is also the strategy of positive self-presentation and negative other-presentation, van Dijk's *Ideological Square Model* was a very comprehensive one for critically analyzing the discourse of VOA English learning website and searching for the traces of electronic colonialism.

van Dijk (2006a) assigned 27 analytical categories to avoid arbitrary discovery procedure of ideological structures and also to enhance the usefulness of analyzing discourses with *Ideological Square Model* including: actor description, authority, burden, categorization, comparison, consensus, counterfactuals, disclaimers, euphemism, evidentiality, illustration, generalization, hyperbole, implication, irony, lexicalization, metaphor, national self-glorification, negative other-presentation, norm expression, number game, polarization, populism, positive self-presentation, presupposition, vagueness, and victimization strategies (pp. 735-739). The meaning of each analytical category along with illustrative examples from this research study are presented in Appendix A. Thus, the corpus from the VOA English learning website was critically analyzed, trying to spot the above-mentioned manipulative strategies.

Data Collection Procedure

In order to reveal whether discourses from the VOA English learning website contribute to the promotion of any aspects of electronic colonialism, van Dijk's (2006) *Ideological Square Model* was applied to the corpus. First, the researchers carefully read all 192 news video transcripts that were electronically searched for the key term *the United States*, checking the possibility of having news stories about this country without directly mentioning the name. Then, 124 news transcripts that included the key term directly or indirectly were all critically analyzed, trying to spot any of van Dijk's 27 analytical categories which denote positive U.S.-presentation. Van Dijk (2006a) himself showed in his sample analysis that a group of these strategies can possibly be detected within any discourse or even any one sentence and they intensify the promotion of in-group favoritism and out-group derogation. Therefore, the researchers reported all the analytical strategies found in each news transcript beside the frequency of their use all through the corpus.

To ensure the reliability of the analysis at CDA level, the stability and reproducibility indices were calculated based on Krippendorff's (2004) advice. First, the researcher analyzed the excerpts a second time after a two-month interval to compute the stability index. This yielded 92.52 of interpretive convergence between the first and the second data analysis. Considering the reproducibility index, the convergence level was found to be 81.04 between the results of data analysis between the researcher and the second analyst who was a Ph.D. candidate in teaching English language with the experience of conducting CDA researches.

RESULTS

All 124 VOA news video transcripts from *Science and Technology* lessons involving the key term *the United States* and its directly and indirectly related terms were critically analyzed applying van Dijk's (2006a) *Ideological Square Model* and noteworthy results were obtained. Twenty

three news video stories were found to offer ideological messages through positive U.S.-presentation strategies. Nine news articles presented negative information about this country, and 93 articles had a neutral approach in presenting the favorable American news without emphasizing the positive information based on van Dijk's model.

Table 1: Frequency and percentage of different in-group descriptions of the science and Technology news stories on VOA English learning website

Types of description	Frequency	Percentage
Positive in-group description	23	18.54
Negative in-group description	8	6.45
Neutral in-group description	93	75
Total	124	100

Due to the fact that reporting the critical analysis of all 124 news lessons was not possible in this paper, the analysis of excerpts from 6 VOA news video transcripts, including one sample of each neutral and negative in-group descriptions and four samples of positive in-group descriptions, are discussed. According to van Dijk (2006a), group identity, aims, values, norms, relations, and resources are ideological categories that group members are expected to talk ideologically about them in the framework of positive in-group and negative out-group presentation. The following example from VOA news lessons, however, proved to have a neutral approach in reporting the United States' *Science and Technology* news to the audiences and of course English learners who watch and study it as a learning material.

1. Researchers in the United States say they have discovered how to genetically engineer corn to produce a kind of amino acid usually found in meat. The result is a food with increased nutrition that could feed animals and people around the world. The new corn, also called maize, could reduce the cost of animal food. The discovery was published online in the Proceedings of the National Academy of Sciences, a scientific journal in early October. (23 Oct 2017)

This news excerpt gives a positive information about new discovery in the United States which could help people of the globe. Corn is a cheap grain that human beings and even animals all over the world have been eating for centuries while meat is a rather expensive food to be a part of everybody's meal. Replacing meat with genetically engineered corn would be a very good news for the poor people in the world. Although, the news excerpt has positive information, van Dijk's (2006a) analytical strategies that emphasize positive information in a framework of polarized positive self-presentation and negative other-presentation were not detected. Therefore, this excerpt and ninety two other news video stories with a similar approach were all regarded as examples of neutral presentation of positive information based on van Dijk's *Ideological Square Model*. The next example, however, presents completely negative information about the United States.

2. *Mystery Solved: Apple Admits it Slows Some Older iPhones*

Many people have long believed Apple intentionally slows down performance of iPhones in an effort to get users to buy new ones. For the first time, Apple has admitted to slowing some iPhones down. But the company explained it only took the action last year to prevent battery-related shutdowns. Apple's action – and the company's decision to keep it secret - led to widespread criticism from industry analysts and iPhone owners.

Owners of iPhones in several states are suing Apple. They accuse Apple of violating fraud laws by purposely limiting performance without informing iPhone owners that the problems might have been fixed by replacing the device battery. This, they argue, forced them to spend more money to buy new iPhones. (26 Dec 2017)

This news excerpt talks about recent issues regarding the *Apple Corporation's* problem with *iPhone* owners. Apple Inc. is one of the Big Tech technology companies, beside Amazon, Facebook, Google, and Microsoft in the United States with customers all around the world. In this regard, Van Dijk's (2006a) *Ideological Square Model* expects that the

American news writer express information that is positive about Apple Inc. or suppress information that is negative about it in order to be a true sample of in-group favoritism. Critically analyzing the discourse of this excerpt, the expected mitigation through applying various lexical, syntactic, and rhetorical strategies was not observed. Thus this excerpt and seven other news lessons with the similar approach were excluded as discourses including negative in-group description which were not in accordance with van Dijk's (2006a) Model. The next four news excerpts, however, are acceptable samples of van Dijk's (2006a) positive self-presentation.

1. Russia's space program faces hard questions as it marks the 60th anniversary of the launch of Sputnik, the first man-made satellite. Some experts are wondering how Russia's aging rocket designs will compete with new, less costly rockets.

Sixty years ago, the area known as the Soviet Union was in a fierce competition with the United States to reach beyond Earth's atmosphere. Tensions between the world's biggest nuclear powers, the United States and the U.S.S.R., were high. The Cold War between the two competing sides, which began after the end of World War II, was intensifying. Then, on October 4, 1957, news broke that the Soviets had placed the first artificial satellite into orbit. Called Sputnik, the satellite was a small sphere, 58 centimeters wide and about 84 kilograms in weight. It contained two radio transmitters that sent out a beep that could be received by radio operators on Earth. The satellite was tiny. Yet, it started the extremely costly competition known as the Space Race. The race would end with the Americans' Apollo Moon landings in 1969. In October of 1957, however, many people in the West were shocked. The Soviets had put an object in Earth's orbit, and they had done it before the West. Soviet media said it was because the socialist political system of the U.S.S.R. was better. In the U.S., lawmakers placed an urgent importance on science education in an effort to "catch up" with the Soviets.

Another rocket used by Russia, the Proton, was designed in the 1960s. These rockets have earned a reputation for reliability over many years of service. But recent launch problems have raised questions about the quality of parts manufactured for the vehicles. Officials found problems with the Soyuz and Proton rockets in 2016 at a factory in the city of Voronezh in western Russia, where the engines for both rockets are built. Russia's space agency sent 70 rocket engines back to the production lines to replace problem parts, the Associated News agency said. These issues led to a one-year suspension of Proton launches. That suspension caused Russia to fall behind both the U.S. and China for commercial satellite launches in 2016. Russia had led the world for more than 10 years before that. (8 Oct 2017)

The news story narrates the so-called *space race* between the *United States* and *Russia* from 1975 till 2017. Thus, comparison strategy is applied to discuss these two poles' advances and failures through history. Both introduction and conclusion sections of the news video transcript point to the fact that Russia is facing struggles in its space programs right now, while the body of the news explains in detail how the Soviet placed the first artificial satellite into orbit before shocked Western countries. We know that the introduction and conclusion are the most read sections of an essay: the introduction because it introduces the essay and contains the thesis statement, and the conclusion because it summarizes it. The introduction of news video stories also grab the audience's attention and the conclusion is intended to leave the audience with a final impression. Thus, mentioning the negative news about Russia in these two sections guarantees the perception of intended negative other-presentation by VOA news writer.

Utilizing authority, number game, and evidentiality strategies, *Associated News Agency* is cited reporting that 70 rocket engines were sent back to the production lines to replace problem parts and this provides more credible evidence of the problems in Russia for the audiences. The Soviets is introduced as a forerunner in space researches but the United States is actually presented as the winner who caught up the Soviets after 12 years

with Apollo Moon landings in 1969. It is worth mentioning that even when the superiority of the Soviets is discussed in the body of the news, the competitive spirits of the American government and scientists are praised.

Implication strategy is also utilized when the writer says “Russia had led the world for more than 10 years”, intending to imply that the United States was the one who won the competition and started leading the world after Russia which in itself is a kind of national self-glorification. All in all, this piece of news transcript tries to positively present the United States’ space research policies and achievements based on van Dijk’s (2006a) *Ideological Square Model*. To sum up here, authority, comparison, evidentiality, euphemism, implication, national self-glorification, negative other-presentation, number game, polarization, and positive self-presentation strategies from van Dijk’s 27 strategies list are found in this news video story.

2. *Swedish-based carmaker Volvo has announced plans to produce only cars with electric motors starting in 2019. In the U.S., Ford said it would launch a new electric SUV by 2020, while General Motors began selling its popular Chevrolet Bolt in all U.S. states. U.S.-based Tesla announced it would begin selling the much-awaited Model 3. Then last month, founder and CEO Elon Musk showed off the company’s new electric-powered truck, called Tesla Semi. He said the truck will be able to travel 800 kilometers on a single charge while pulling a full load of 36,000 kilograms. Production is set to begin in 2019, with no price yet announced. (27 Dec 2017)*

This excerpt discusses the mass production of cars with electric motors around the world. Applying illustration strategy, the first sentence refers to promises from a famous *Swedish carmaker factory*, VOLVO that plans to only produce cars with electric motors from 2019. The news writer, then abruptly focuses on *American carmakers* _Ford, General Motors, & Tesla_ that are already producing electric cars with excellent qualities. Combining both implication and comparison strategies, the reader would perceive while the other car factories in the world are planning to produce

electric cars, American carmakers are selling their electric cars and American people are willingly buying these cars.

Applying lexicalization strategy, the terms “popular Chevrolet Bolt” and “much-awaited Model 3 Tesla” evoke pleasant feelings about these cars and indirectly shows that they are accepted warmly in the United States and popularity and being much-awaited means they are not new phenomena in the U.S. Thus, *the United States*’ position regarding electric cars is elevated and differentiated from the whole *world* and positive self-presentation is evident.

The second half of this piece of news quotes Tesla CEO *Elon Musk* who introduced the company’s new electric-powered truck with astonishing abilities. This part employs authority, evidentiality, and number game strategies in order to enhance the credibility of the news reports. As a result, this news story is a sample of positive U.S.-presentation. Thus, the authority, comparison, evidentiality, illustration, implication, lexicalization, number game, and positive self-presentation strategies from van Dijk’s 27 strategies for *Ideological Square Model* were detected above.

3. *Human exploration of Mars is now an official goal of the National Aeronautics and Space Administration (NASA). Last month, U.S. President Donald Trump signed a bill to increase NASA’s budget. The law sets spending at \$19.5 billion for the 12-month period starting on October 1, 2017. Congress will need to approve the money. And for the first time, the NASA budget adds human exploration of Mars as an official goal for the agency. The president spoke at the signing ceremony. Trump said he was happy to sign the spending plan into law. He added that for almost 60 years NASA has inspired millions of Americans to imagine distant worlds and a better future on earth. “It’s been a long time since a bill like this has been signed, reaffirming our national commitment to the core mission of NASA: human space exploration, space science and technology.”(9 Apr 2017)*

National Aeronautics and Space Administration (NASA) is a U.S. government agency that is responsible for science and technology related to air and space since 1958. “The NASA administrator is nominated by the president and confirmed by a vote in the Senate” (What is NASA?, 2018). This news video story concentrates on the significance of NASA’s projects for the American people and government with a fascinating sense of national self-glorification.

At first, it is stated and highlighted that “human exploration of Mars” has changed into an official goal of the NASA after the *President Trump*’s signing a bill to increase the agency’s budget for achieving this goal. “U.S. President Donald Trump” is placed at the beginning of the second sentence in order to emphasize the actor’s identity and his being the highest rank representative of the American society who is signing such a prominent bill. Applying number game strategy, the news writer attempts to both enhance credibility and persuasively display objectivity in presenting this stunning piece of news as \$19.5 billion for the 12 months from the government is a gigantic budget for a space exploration goal. These digits also imply the fact that how important is attaining this goal for the U.S. government, trying to be the first country in the world that has the ability to send people to the other planets.

The lexicalization strategy is utilized for conveying a positive viewpoint of president Trump about NASA’s projects, using words like: *ceremony*, *happy*, *inspire*, *better future*, *reaffirm*, and *national commitment* helps to create a more favorable picture of what’s happening. The second paragraph uses authority strategy and cites Trump’s speech at the signing ceremony and therefore, accentuates his being glad to support NASA’s missions. The whole news transcript implicitly distinguishes Americans’ approach toward space science and technology from the entire world. Populism strategy is also applied to suggest that almost all Americans enjoy NASA’s achievements and they hope the government supports and encourages this agency.

Thus, this excerpt is a valid example of the VOA English learning websites' positive U.S.-presentation and of course national U.S.-glorification. The whole discourse is intended to elevate the United States' space-related position in the world and impress the audience. To sum up, the researchers found: actor description, authority, implication, lexicalization, national self-glorification, number game, polarization, populism, and positive self-presentation strategies.

4. *Weather Predictions Expected to Improve with New U.S. Satellite*

A new American weather satellite could save more lives by better predicting extreme weather conditions. The satellite was launched from Cape Canaveral, in the state of Florida, on November 19. It will be in orbit some 36,000 kilometers above Earth's surface. NOAA Administrator Kathryn Sullivan said its instruments will be able to study Earth five times faster and with four times more detail than any other NOAA satellite currently in operation. She believes this will make the United States an even stronger, more "Weather-Ready" nation. (27 Nov 2016)

The news headline promises better weather prediction with the help of *the United States'* new satellite. Repeating and emphasizing on the fact that the new satellite is designated and constructed in the United States (U.S. satellite and American weather satellite), the news writer intends to make sure the audience became aware of the origin of this technology and then presents the unique features. There is nothing more important than saving lives which is attributed to the utilities of this satellite and this is definitely an attempt to positively present the United States' technological position. Applying number game and evidentiality strategies the news video story points to the great distance of the satellite with the Earth and the new capabilities of this satellite in comparison with all the other existing ones.

The number game and lexicalization strategies are applied to last two sentences, using the terms "five times faster", "four times more detail", "stronger", and "more Weather-Ready nation" the audience would surely comprehend the profits of new satellite comparing the United States' new

weather prediction capabilities with the past. Thus, the information that is presented and emphasized in this transcript is a sample of positive self-presentation according to van Dijk (2006a).

The final sentence also utilizes the implication strategy in order to convey national self-glorification too, as the audience would feel *the United States* has been a strong and weather-ready country being compared with *other countries in the world* and now the introduction of the new satellite makes it even more superior. Therefore, the VOA news writer seems to be successful in communicating effectively their favorable scientific position as a core country in the world based on McPhail's (2006) ECT. Actor description, evidentiality, implication, lexicalization, number game, and positive self-presentation strategies are utilized in this piece of news.

The other 19 transcripts that had a similar approach of positive self-presentation based on van Dijk's (2006a) *Ideological Square Model* were also critically analyzed and the frequencies and percentages of applying strategies from his 27 proposed strategies are presented in the following table.

Table 2: Frequency and percentage of strategies of Ideological Square Model observed in the news stories which positively presented science & technology in the United States

Strategies of Ideological Square Model	Frequency	Percentage
Burden, Counterfactuals, Disclaimers, Hyperbole, Irony, Victimization	0	0
Categorization, Consensus, Euphemism, Generalization, Illustration, Metaphor, Norm expression, Populism, Vagueness	1	4.34
Negative other-presentation	2	8.69
Presupposition	3	13.04
Comparison	4	17.39
Evidentiality, Polarization	5	21.73
National self-glorification	9	39.13
Lexicalization	10	43.47
Actor description	12	52.17
Authority	13	56.52
Implication	14	60.86
Number game	15	65.21
Positive self-presentation	23	100

As Table 2 shows, the positive self-presentation, number game, implication, authority, and actor description had been respectively utilized in 100, 65, 61, 56.5, and 52 percent of twenty-three news stories which positively presented *Science and Technology* news in the United States.

DISCUSSION

The findings of the present study revealed that 67% of the whole news video transcripts collected from the *Science and Technology* section of the *VOA English Learning Website* reflected new scientific and technological discoveries in *the United States* and this is a noticeable percentage as these news reports were expected to be selected from the VOA world news. Of course, the strength of the United States' science and technology is not comparable to any other country due to many advantages like "the strong tradition of public and private investment in research and advanced education, the quality of academic personnel, the prevalence of English as the language of science and engineering, etc." (Rising Above the Gathering Storm, 2007). However, many countries have lately made scientific and technological research a high priority for themselves and the European Union (EU) has become the most competitive knowledge-based chaser of the U.S. in the world.

The VOA website pointed out that *Science and Technology* lessons contain new developments in science, space exploration, and technology. It was not mentioned these English learning materials are mostly about the home country and the English learners might not even notice the high frequency of the news about or related to the United States. In this regard, *Electronic Colonialism Theory* predicts that developing and updating free online English learning programs which need tremendous funds are done in order to fulfill the core countries' wish to establish mental empire within periphery countries through influencing the minds, attitudes, values, beliefs, lifestyles, and languages of their audiences.

The findings of this study showed that 94% of the VOA news stories with American science and technology topics reflected positive information about the United States while around 19% were detected to ideologically emphasize the positive information based on van Dijk's model. These positive news stories included reports highlighting fascinating scientific achievements and technological inventions from: American carmaker companies (1), medical studies (3), space explorations (14), social media companies (2), agricultural studies (1), weather predictions (1), and solar energy studies (1). The minimum impact of the above-mentioned news stories about the United States would be creating a perfect and desirable image of their own science and technology level. The learner who attempts to learn the English language through the VOA website's lessons aims to learn scientific and technological news words, phrases, and statements using authentic world news while the website aims to teach more than the English language.

The discursive structures utilized by the VOA Website and the frequency of presenting positive information about the United States' magnificent scientific status in relation to the other countries in the world and of course, using such news stories as ELT materials accentuates the possibility of following a hidden agenda which strive to dominate the learners' minds. This is what McPhail's (1987, 2006) electronic colonialism talks about: the core media firms that strive for converting and capturing the attitudes, minds, and purchasing behavior of global customers. Eijaz and Eijaz Ahmad (2011) believe that "during the colonial era, the mass media were organized to satisfy the needs of the former colonists; and following the end of actual colonialism, the media have yet to shake off this legacy" (p. 142). Migge and Léglise (2007) also think that all through the history, colonial powers vigorously executed educational systems that were "geared to suit their own needs", trying to infuse European morality in their colonial learners' minds and also prepare a cheap labor resource among learners for their future economic endeavors (p. 329).

Fourteen out of twenty-three news stories with ideological positive U.S.-presentation approach (about 61 %) reflected NASA space agency's outstanding discoveries and achievements. Almost all these news stories highly emphasized the American possession of this agency through repeating the following phrases: "the U.S. space agency", "America's space agency", "American space agency NASA", and "American NASA" and then immediately the United States' scientific pioneering in the space explorations and discoveries were justified. The significance of NASA's projects for the American people and government was expressed with a fascinating sense of national self-glorification and the U.S. government's efforts to keep the United States as the first and the only country with the power and knowledge to send people to the Mars to live or to the Moon as a recreational journey was praised.

Choosing such news stories as learning materials guarantees elevating the unrivaled position of the the United States' space exploration in the world which helps promoting electronic colonialism without using military forces. Thus, continued dependence of the periphery countries on learning through the core countries' online educational programs will eventually facilitate electronic colonialism and imperial relationships slowly and steadily. McPhail (1987) believes that the basis of culture is information and "the greater the foreign information, the greater the threat to a native or domestic culture in the future" (p. 287). In this regard, both developed and developing countries need to concern about the Western, mainly American, cultural intrusions. Kwet (2019) states that absorption into the United States' technological empire forms a new type of colonialism which dominates the thoughts, emotions, behaviors, economy, education, culture, and politics of the technology users. Phillipson (1992) also believes that language teaching materials and curriculum that *center* countries (i.e. native English speakers) provide for the *periphery* countries are value-laden and aim to dominate local communities through replacing Anglo-American culture.

According to McPhail (2006), influences on the minds and attitudes of the mass media audiences happen so invisibly and unconsciously that they do not even notice the changes and their consequences. Therefore, the VOA English learning website seem to make an effort to establish a psychological or mental empire under the cover of teaching the English language to the interested learners from different parts of the world. In a recent study, Soleimanifard et al. (2020) reported that BBC Internet-mediated English learning program was promoting “certain British ideological values, scientific superiorities, and political messages” to the learners all over the world (p. 79). Karimi and Marandi (2020) also believed that although BBC English learning program has the claim of being simply educational, it conveys certain messages through different discursive mechanisms that represent Iranian social actors in unfavorable manners. Karimi and Nafissi (2017) also recommend not to use globally designed language learning materials as they attempt to sell “Western culture, norms, values, and world views to the rest of the world”, instead of teaching English as an international language (p. 107). They stress that such materials ignore all local knowledge, constructs, and identities, as their hegemonic purpose intend to degrade and marginalize such local belongings.

Reading so many news story transcripts about NASA’s prominent discoveries and researches, the English language learner might think the United States is the only country that possesses space intelligence and this is what electronic colonialism predicts to happen as a result of the core country’s constant positive self-presentation. The learners from the developing countries and even other developed countries might be astonished by how much Americans have reached scientific and technological advancement and gradually grow disrespect for their own countries’ capabilities and achievements. This is what McPhail (1987) believes to be “the trapping of an alternative lifestyle, culture, economy, or political message” which is offered through exporting modern technology from the core to the periphery countries (p. 18). In this vein, Szymanski (1981) highlights that imperialism is not limited to the relations between the

core and periphery countries, as a developed country can just as well dominate and exploit another developed country like what the United States does to Canada.

The VOA English learning website also applied emphatic approach toward presenting the great American institutions' achievements such as Ford Motors Company, General Motors Company, and Tesla Incorporation's being forerunners in designing and producing electric cars, Facebook Incorporation's matchless innovations in applying artificial intelligence to help people in their personal life, for example, preventing them from committing suicide, NASA Space Agency's dreamlike space discoveries and missions, SpaceX Corporation's exciting plans for sending people to the moon, etc. These news reports were certainly based on reality but using ideological positive self-presentation strategies in order to influence the news viewer and then selecting such news as English learning materials could intend to shape a powerful, progressive, and perfect image of this country on the English learner's mind. This is exactly what electronic colonialism is about, the mind being shaped gradually by mass media and then capturing the consumption patterns of the media audiences.

In-group favoritism approach of the VOA news excerpts, first of all, stressed that the American superior science and technology has created a safer, healthier, more comfortable, more exciting, and more up to date life for the American residents and secondly, pointed to the fact that these American innovations would later be exported to the other countries to let them benefit from the advantages. ECT declares that when the core exports technology in all material and software manifestations to the periphery, they carry with them a broad range of economic, social, cultural, political, ideological, or religious values. Long-term exposure to such media images and messages extends the West's "markets, power, and influence" (McPhail, 2006, p. 15). Ebrahimi and Mohammadi (2012) also believe that a soft war is the least expensive, the most influential, the most inconspicuous, and certainly the most threatening strategy especially due to its deep influence on the souls and hearts of nations, at both individual and social levels.

CONCLUSION AND IMPLICATIONS

This study attempted to investigate traces of electronic colonialism within *Science and Technology* lessons of the *VOA English Learning Website* which teaches the English language through authentic science and technology news video stories. The findings revealed that 94% of the VOA news stories with American science and technology topics reflected positive information about the United States while around 19% were detected to ideologically emphasize the positive information based on van Dijk's (2006a) *Ideological Square Model* through utilizing manipulative structures like positive self-presentation, national self-glorification, and negative other-presentation. The Website itself claims to help learners to absorb American English through the world science and technology news, however, ECT proposes these free online educational programs function as the most feasible instruments in order to manipulate people's minds and acts. The ideologically positive news video transcripts were found to promote certain American political, economic, cultural, social, and ideological values. McPhail (1987) believes that the exported mass media delivers the "trappings of an alternative lifestyle, culture, mental set, economy, or political messages that goes far beyond the momentary image flickering on a screen" (p. 15).

As the findings of this study suggest, although applying the Internet to teach and learn the English language is growing promptly and the core countries' Websites invest more and more in this regard, the teachers and learners must be cautious about the possible manipulative purposes of such educational programs. The success of the online English learning depends on the learners' ability to inspect the content, reflect on the purposes, and evaluate the merits in order to be wise and critical autonomous learners. In this regard, the teachers can also promote intercultural understanding among their students through critical thinking activities and this can surely increase the success of online educational programs and simultaneously decrease the possibility of cultural hegemony. Considering the findings of this study,

EFL researchers can conduct similar studies on other online educational Websites, utilizing different models of CDA in order to analyze the possible ideological manipulations. The learners' and teachers' views on learning through such online materials and the actual consequences can also be studied through gathering questionnaires.

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Appendix A

The explanations of Van Dijk's (2006) 27 categories of Ideological Discourse Analysis with their examples from the VOA science and technology news lessons

	Categories of Ideological Discourse Analysis	Explanation	Example
1	Actor Description	Van Dijk (2006, pp. 735-739) The actors are usually described in ideological discourses based on the speaker's ideologies, indicating in-group	Stallmer says Musk's work in the last ten years is " incredibly impressive. " He started SpaceX with his money, and now has large contracts with NASA and the U.S. defense department. And he is

		favoritism and out-group derogation.	building reusable rockets. (7 Mar 2017)
2	Authority	People with different ideologies cite different authorities in order to support their own argument.	Physicist Stephen Hawking said people should return to the Moon and go to Mars because leaving Earth may be the only way to save humanity. (June 30, 2017)
3	Burden	Ideological arguments against the out-group members typically insists on emotional, financial, legal, and other burdens on in-group members.	...
4	Categorization	Social psychology reports that people usually categorize people based on their ideology.	The U.S. space agency NASA announced that American astronaut Jeff Williams and Russian cosmonauts Aleksey Ovchinin and Oleg Skripochka returned to Earth this week. (9 Sep 2016)
5	Comparison	Ideological comparisons commonly occur when speakers compare in-groups and out-groups.	NOAA Administrator Kathryn Sullivan said its instruments will be able to study Earth five times faster and with four times more detail than any other NOAA satellite currently in operation. She believes this will make the United States an even stronger, more "Weather-Ready" nation. (27 Nov 2016)
6	Consensus	Trying to claim or insist on cross-party or general consensus is a well-known political strategy in ideological arguments.	Trump said he was happy to sign the spending plan into law. He added that for almost 60 years NASA has inspired millions of Americans to imagine distant worlds and a better future on earth. "It's been a long time since a bill like this has been signed, reaffirming our national commitment to the core mission of NASA: human space exploration, space science and technology." (9 Apr 2017)

7	Counterfactuals	Expressing what has not happened like the expression “What would happen, if . . .”, is often used in ideological arguments as a kind of persuasive argumentative move.	...
8	Disclaimers	Disclaimers are speakers who attempt to save face by referring to Our positive attributes, and then accent only Their negative attributes.	...
9	Euphemism	Avoidance from negative impression formation is very crucial within the framework of the strategy of positive self-presentation.	Then, on October 4, 1957, news broke that the Soviets had placed the first artificial satellite into orbit. Called Sputnik, the satellite was a small sphere, 58 centimeters wide and about 84 kilograms in weight. It contained two radio transmitters that sent out a beep that could be received by radio operators on Earth. The satellite was tiny . Yet, it started the extremely costly competition known as the Space Race. The race would end with the Americans’ Apollo Moon landings in 1969. (8 Oct 2017)
10	Evidentiality	Providing some evidence or proof for knowledge or opinions makes the ideological argument more reasonable to the audience.	MacKugler told VOA that most of the company’s sales come from young people living in cities. (25 Nov 2017)
11	Generalization	In particular situations, speakers make generalizations instead of providing examples to state prejudices.	How do you get the freshest, locally grown fruits and vegetables in a big city? For an increasing number of Americans, the answer is to grow the fruits and vegetables themselves. (25 Nov 2017)

12	Hyperbole	Hyperbole is a kind of rhetorical device that can help the total framework of positive self-presentation and negative other-presentation in ideological arguments.	...
13	Illustration	Providing concrete examples is a powerful move in ideological arguments that makes the speaker's point more plausible.	Efforts like Seedsheet come as Americans increasingly want to know where their food comes from. Many are looking for socially and environmentally responsible growing methods. (25 Nov 2017)
14	Implication	Speakers typically do not say everything explicitly and a large part of discourse is needed to be inferred based on the audience's own knowledge.	Children aged 6-12 are allowed to use Messenger Kids, which is currently only available for users in the United States . (06 Dec 2017)
15	Irony	Accusations would be more effective when they are not stated straightly, but stated in the form of irony which is less face-threatening act.	...
16	Lexicalization	The overall ideological framework of positive self-presentation and negative other-presentation typically influence the utilized expressions.	In the U.S., Ford said it would launch a new electric SUV by 2020, while General Motors began selling its popular Chevrolet Bolt in all U.S. states. U.S.-based Tesla announced it would begin selling the much-awaited Model 3. (27 Dec 2017)
17	Metaphor	Metaphors make abstract and unfamiliar concepts	"Lunar samples are the gift that keeps on giving ," Petro says. "We will be studying

		more familiar and concrete.	them 45 years from now and 45 years after that.” (5 Mar 2017)
18	National Self-Glorification	National self-glorification is a kind of positive self-presentation in which people praise their own country.	The American space agency successfully tested a powerful new rocket engine this week in the desert of northern Utah. The rocket booster is meant to take astronauts to the planet Mars one day. This was the second and last qualification ground test for what NASA officials are calling the “most powerful rocket in the world.” (2 Jul 2016)
19	Negative Other-Presentation	Ideological arguments that categorize people to in-groups and out-groups typically present good Us and bad Others.	Russia’s space agency sent 70 rocket engines back to the production lines to replace problem parts , the Associated News agency said. These issues led to a one-year suspension of Proton launches. That suspension caused Russia to fall behind both the U.S. and China for commercial satellite launches in 2016. Russia had led the world for more than 10 years before that. (8 Oct 2017)
20	Norm Expression	Norm expression involves explicit norm statements about what we should or should not do.	The free service, called Messenger Kids, must be activated by the child’s parents. Parents can then create a profile for the child as an extension of their own Facebook account. Parents must approve all requests before people can connect with the child. (6 Dec 2017)
21	Number Game	Numbers and statistics primarily enhance credibility and objectivity in arguments.	Last month, U.S. President Donald Trump signed a bill to increase NASA’s budget. The law sets spending at \$19.5 billion for the 12-month period starting on October 1, 2017. (9 Apr 2017)
22	Polarization, Us-Them Categorization	Polarization is a common strategy in ideological arguments that helps the categorical discussion about in-	Other private companies and individuals would like to explore space. SpaceX, an American aerospace company , has announced plans to launch its “Red Dragon” spacecraft to Mars as early as

		group members (Us) and out-group members (Them).	2018. (9 Aug 2016)
23	Populism	Populism strategy tries to talk about what the people or everybody in the group agree or disagree about.	American consumers are not giving up on the low cost and ease of packaged and prepared foods. But new products and technologies are playing a part in helping Americans understand where their food comes from. (25 Nov 2017)
24	Positive Self-Presentation	Positive self-presentation or in-group favoritism stands against negative self-presentation or out-group derogation which is defined based on the ideology of each group.	A new American weather satellite could save more lives by better predicting extreme weather conditions. (27 Nov 2016)
25	Presupposition	Presuppositions are utilized to suppose that some proposition are true while their truth is not proved in the argument.	But out of those 18,300 applicants, just eight to 14 will be hired by the U.S. space agency. That means chances of becoming an astronaut are less than 0.08 percent. That makes getting into this program 65 times harder than getting into Harvard University . (12 Jun 2016)
26	Vagueness	Vague expressions are used in all contexts and they include expressions that refer to fuzzy sets.	Research in 2015 had suggested that lines on some Martian hills were evidence of water. Yet American scientists now say these lines appear more like dry, steep flows of sand . (9 Dec 2017)
27	Victimization	Victimization strategy is typically used in order to emphasize the bad attributes of the out-group members that threaten the goods of the in-group members.	...