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**ORIGINAL ARTICLE**

# How to Create, Maintain, and Reinforce Students' Motivation and Engagement in Online Education: A Discussion

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**ABSTRACT**
Online (virtual) education is a teaching and learning method selected by many institutions, including Eastern International University (EIU), to overcome the lockdown and curfew periods during the Covid-19 pandemic. In this knowledge transferring mode, maintaining students' engagement and motivation is the concern of lectures and school administrators. This study discusses the origin, advantages, and disadvantages of online teaching, compared with on-campus face-to-face education. Also, using the results of a student survey conducted by the Student Services Office, this study highlights some serious issues related to online education in the Becamex Business School at Eastern International University, including poor internet connection, lack of interaction between lecturers and students, external noises, and students' insufficient attention to the lectures. Then, this study proposes four solutions to remedy these problems: (1) student-friendly or familiar examples, (2) technology-aided teaching methods, (3) project-based assessment, and (4) seven principles for good practice in undergraduate education.

## 1. INTRODUCTION

Eastern International University (EIU) is a physical and virtual high-level education institution where students can study and pursue a university degree in preparation for their careers and jobs. It is also a workplace where the lecturers, staff, and other employees work side-by-side within their roles to provide education and services to our students and community, as well as achieve our aspirations.

Since the Covid-19 pandemic broke out in Vietnam, EIU has moved to an online education platform using mainly Google Meet, Google Sites, and emails to provide education and services to our students. This online education platform is very new to our students and lecturers, and the student-student and student-lecturer interactions are severely affected. Some lecturers have a good reason to claim that making our students understand online education materials is difficult. Therefore, to achieve the program learning outcomes (PLOs), apart from other factors, lecturers need to make sure that they can maintain and reinforce our students' motivation (as self-efficacy) in online education. Students will likely focus on their studies if they find them interesting or important (Harackiewicz et al., 2016; McPherson & McCormick, 1999; Paas et al., 2005).

Motivation is a determinant of learning success and lack of motivation causes a high dropout rate among students, especially in complex online education environment (Pass et al., 2015). It also is the process whereby goal-directed activity is instigated and sustained (Blaskova, 2014; Yukseloglu & Karaguven, 2013). Using the survey of 186 university students in America, Dixson (2010) showed that active learning environments and meaningful multi-communication channels between student-student and student-lecturer could help to increase student motivation and

engagement in online classes. Blaskova (2014) conducted a study using the qualitative-quantitative research method and a sample of 98 freshmen and sophomores in Slovakia and suggested that the variety of assessments, academic responsibility of the students, and lecturer's fairness to the students had a positive impact on both student's motivation and creativity. Another study (Ithriah et al., 2020) using a sample of 101 Indonesian students showed that self-efficacy played an important role in the student's motivation and online education success. A recent study (Kenney & Bailey, 2021) using 47 students in an upper-level cognitive psychology course showed that the low-stake quizzes such as pop-quizzes and chapter quizzes increased the students' motivation, performance, and confidence in their class. Using a large number of first-year students (1,702 students), another recent study (Krsmanovic, 2021) showed that project-based learning (PBL*)* positively affected the students' motivation and self-efficacy.

## 2. LITERATURE REVIEW

### *2.1. Definition and origin of online education*

The traditional learning style where students can interact with the lecturers face-to-face is more beneficial in delivering knowledge. However, the Covid-19 pandemic does not allow face-to-face lectures. In that case, online education is the only option available. There are some unavoidable drawbacks with online education - the evolution of many other long-distance learning methods in the past (Kentnor, 2015). Looking back to ancient time, especially from Socrates' time, many people around Athens dreamed of participating in his lecture once before they died (Bloomer, 2015). However, a variety of internal and external factors did not allow them to fulfill their dream. One of the main reasons might have been the misery of the Peloponnesian war between Athens and Sparta that made every path to Athens turn into a battlefield (Thucydides, 2021). The journey to walk from one city to another took months or years due to the weather and battles (Thucydides, 2021). It was considered the application of long-distance education at that time (Bloomer, 2015). However, considering Socrates the pioneer of the long-distance learning method might be incorrect. The rise of long-distance learning methods only came 2000 years later when the innovations of technologies eliminated the separation of lecturer and student (Keegan, 1980).

After three generations of technological innovations in distance education (Garrison, 1985), the quality of distance learning is now improving. The first generation was correspondence learning, using the combination of educational material and the postal system as a medium of two-way communication (e.g. broadcast, audio/video cassettes, video discs). However, its disadvantages included a low rate of interaction and a strong desire for a more interactive experience. In the following telecommunications generation, the students and lecturers communicated through telephone and teleconferencing (e.g. audio, video, and phone). Even though the second-generation yielded useful and desirable results, it still had two main concerns. The first one was the difficulty in communication if many students wanted to join the telephone call at once (Holmberg, 2005). The other concern was the interruption of the phone call during the lecture because someone suddenly called the lecturer or student (Holmberg, 2005). The third generation of distance learning uses computers, the internet, and mobile apps (online) to maximize the interaction and independence of distance learning.

### *2.2. Differences between online and offline (on-campus face-to-face) learning methods*

The main differences between online and offline learning methods are location, timescale, ways of communication, and technology dependency. There might be some other differences but these four are the most distinguishing elements to differentiate online and offline learning methods. Beginning with offline learning, the participants have to travel to a fixed venue, which could be a training location, lecture hall, or classroom, at an exact time, performing face-to-face communications, with mostly no technology requirements. Meanwhile, the online method provides a more flexible learning style for privacy. Participants could choose to join the lecture from practically anywhere in the world. Moreover, if the lecturer does not require a live session/lecture, the participants could choose anytime they want to learn because all the courses are recorded. However, the downside of that online method is that it heavily relies on computer-based communications and technology.

Online education is the most advanced platform and makes learning possible for a student at a distance to maintain virtually complete independence and yet experience a high-quality interaction characterized by learning diagnostics and feedback (Garrison, 1985). Of course, there are still differences between the on-campus and the online education approaches no matter what advanced technology is. The online education method is applied to support participants (e.g. lecturers, students) who can't join the course on campus due to unavoidable reasons such as distance, pandemic,

and sickness. Students can still learn the content by reading the class materials and doing homework/exams at a suitable time and place. The on-campus method requires students to come to their classes at a specific time and place. With lectures related to medicine, acting, or music, the face-to-face learning method and interactions are more fruitful because both lecturer and students can get immediate responses from each other (Holmberg, 2005). However, the fixed time and place of the on-campus method somehow limits the education opportunity of some students. So, in the online education mode, the barriers of time and place are non-existent. Therefore, a flexible schedule is an outstanding difference between online education and on-campus methods.

### *2.3. Advantages of online education compared to the traditional approach*

The most acknowledged advantages of online education compared to offline education, from high to low, are location, timescale, and varied ways of learning. With offline education, participants are required to travel to a fixed place, at an exact time, and receive one common way of learning – the lecture method. Although the argument about the most commonly applied learning method in the traditional classroom is still disputable, many researchers did demonstrate the most common method is the lecture method (Kaur, 2011). The online method does not demand participants to travel to any specific place; instead, it allows participants to turn any place into their learning basement. This advantage became extremely useful during the Covid-19 pandemic since schools in many countries were not allowed to open during this time (Makhtar et al., 2020).

In addition, flexible learning time is another trump card of the online method. For a normal offline class, participants have to come to all the courses at the arranged time in order to get a full participant's score, or more importantly, to not miss any piece of essential knowledge. However, the online method does not force students to that strict timeline. Even with the worst scenario of least-flexible-timing online classes, all courses are live sessions. The students could still save time travelling to the physical classroom, and even leave the live session 5-10 minutes earlier with the permission of the host with no fear of missing any piece of information because the class is recorded. Another scenario of normal online classes includes some courses as live sessions and some courses as recorded sessions. In this type of online class, the students have a wide range of timescale for their suitable learning time. One important factor to consider is that not every student has the same biological time (Portaluppi et al., 2010). This means some students learn better during the day, but some students learn better during the night. The disadvantage of classroom learning is that it treats all types of students the same, and puts them into the same schedule of learning. This might be a reason that some students are unable to achieve all of their potentials. The online method addresses the shortcoming of the offline method by giving the students the privilege to study at any time they want.

Besides time flexibility, students are also able to choose the most suitable learning style for them. Similar to the argument about biological time, students have different ways of absorbing knowledge (Akkoyunlu & Soylu, 2008). Some students prefer the traditional lecture learning method, while others incline to the visual learning method, kinesthetic, or reading/writing method. Classroom learning does not give enough room for students to personalize their suitable learning style because, for example, students are required to get into the same classroom at an exact time. The lecture may not be long enough to personalize the habits of every person. The lecturer will have to choose the most common method for everyone based on scientific and practical situations; hence, some students may be left behind for the benefit of the majority group. However, online education, with its wide range of available learning styles, could eliminate this defect of classroom learning.

Some other advantages of online education cannot be measured in monetary terms. Efficiency is also an advantage that differentiates online education from the traditional method. Using technology such as data-based systems and mobile apps, the lecturers can provide different learning materials (e.g. video, print, podcast, slides) to students well in advance of the actual lectures. This helps students prepare better, take more responsibility, and equip them with technological skills (Zalat et al., 2021). This could be one of the reasons why many universities offer accelerated degrees to only online students. Another advantage related to the flexibility of the online education model is providing education to students who live far away. The student can have more opportunities to be educated safely and at a much cheaper cost, especially at a private university (room, boarding, transportation cost, and other fees related to on-campus student life are excluded) as shown in Figure 1 below.

With advantages such as flexibility, efficiency, accessibility, safety, and affordability, online education is the appropriate learning mode for many students with different backgrounds in a wide range of countries, especially during the Covid-19 pandemic.

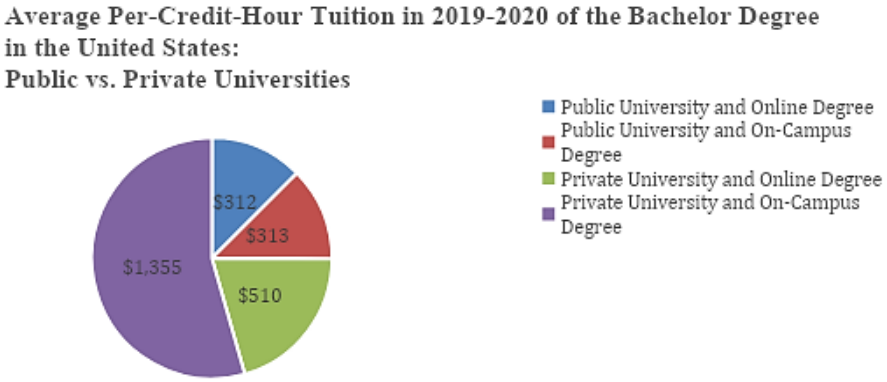


*Figure 1. The Per-Credit-Hour Tuition at the U.S. University in 2019-2020*
*Note: Compiled by authors using the data from The Chronicle of Higher Education (2021)*

***2.4. Disadvantages of online education compared with the traditional approach***

Besides the advantages, online education has typical weaknesses. Online education is computer-based and requires reliable Internet connection. These elements provide online education with many advantages as mentioned above, but also illustrate some vital and unavoidable weaknesses with the current level of technology. Three weaknesses (from high to low) are internet-connected dependency, technology involvement, and social interaction decline. However, offline learning could be interfered with for months because of Covid 19, a pandemic that is estimated as the global pandemic and rarely occurs (Morens et al., 2020). Online education could be affected in a shorter amount of time, but at a higher rate of frequency due to Internet connection. Since the most important factor to carry out online education is Internet connection, any disruption of the Internet can cause the delay of online learning (Sun et al., 2008).

Internet providers are the same as other types of businesses. Sometimes the companies will get into some unavoidable troubles that affect their operations. For an Internet provider company, the inability to work normally will directly affect its customers' Internet connection. A sudden reduction in the quality of Internet connection of one big Internet provider may affect thousands of Internet users. As a result, students relying on stable Internet connection cannot learn well in the online class. Also, the higher the Internet price, the smaller number of poor students will be able to get good and stable Internet connection because of the limited financial means.

Plus, online education has other weaknesses. The most serious weakness is the lack of real-time or face-to-face interaction between students and lecturers and students and other students. For some degrees and programs that require many on-site lab hours under lecturer supervision or in-person tutoring (e.g. medical and technical school), this weakness is so critical to the success of students (Adams, 2009; O'Doherty et al., 2018). Another weakness is the emotional attachment of the online students. Enrolling in online education, students may not spend any time at the campus, or talk with their lecturers and peers in person. So, they may not have a great affection for their peers, lecturers, and even schools (Harackiewicz et al., 2016; Mahlangu, 2018; Okdie et al., 2011; Sarkar et al., 2021; Yang & Cornelius, 2004). In addition, technology is an important factor affecting the quality of online education; if the students have a poor technology experience (e.g. bad Internet connectivity and computer, laptop, mobile devices, and network), they will feel frustrated (Zalat et al., 2021). One final weakness of online education is the distraction among students due to the surrounding environment. During the online lecture, the students may be surrounded by their friends, family members, television, etc. All of these distractions could take away the attention of the students from the lecture.

Due to its basic design, online education has two vital and unavoidable weaknesses: 1) unstable Internet connection, and 2) problems with communication that cannot be eliminated with the current level of technology. There are some other potential weaknesses, but those weaknesses are debatable for their double-edged characteristics. Thus, they will be listed below as potential pros and cons.

***2.5. Potential pros and cons of online education***

The first double-edged feature is the learning attitude. Learning attitude could be a potential because the learners will participate in the class without anyone physically reminding them to focus on the lessons or the deadlines. Gradually, students who do well in the online class will be equipped with the skills and habits that are valuable in the

workplace, such as manners, commitment, and responsibility. However, online courses also might cause some downsides of learning attitude. Without self-motivation and time management skills, the learners might find it difficult to succeed in the online class since there may not be anyone physically reminding or pushing the students to work hard (Chen & Jang, 2010).

Another double-edged feature is its process of teaching new knowledge. This process can be divided into two phases: theory and practice. Online education provides abundant sources of theory but lacks a practice-based study (Ayling & Hebblethwaite, 2011). This double-edged issue can be seen most clearly in physical education or other classes that require practice. For example, in a golf class, if the students want to learn how to swing the golf club properly, online education can provide many examples - even from professional golf players. However, being able to swing like professional golf players requires years of experience and practice, which cannot be absorbed through learning theory only. Thus, it cannot provide real practice and experience in the field.

A final double-edged feature is the dependence on technology. The younger generation might find it easy to adapt to online education if they cannot go to school during the Covid-19 pandemic. However, the downside of technology involvement is that nowadays education is not for the young only. The commonly acknowledged age of graduating from college/university is no longer 20 years old; some adults in their 40s, 50s or higher still come back to college for a bachelor's, master's, or even a PhD degree. The problem with these older learners is that up to 23% of them don't use the Internet (Zickuhr & Madden, 2012). Therefore, they experience difficulties adapting to this new education model.

## 3. MATERIALS AND METHODS

This study employed quantitative methodology to explore numerous issues related to online education in the Becamex Business School at Eastern International University. In an attempt to achieve the objective of this study, a survey on 201 students was designed and administered to identify the factors that contribute to the most common problems. The survey focuses on two main questions: Are there any problems with your online education? If there are, then what the problems are? The procedures for the survey are as follows:

Step 1: Design the survey questions.

Step 2: Send the survey to our colleagues for feedback and then revise the questionnaire.

Step 3: Pilot the revised questionnaire on a small group of 25 students and then make a minor adjustment.

Step 4: Using the university internal email system, the final questionnaire was sent out to all of the current Becamex Business School students (there are 1378 students).

## 4. RESULTS AND DISCUSSION

### *4.1. Common problems of online education at Becamex Business School*

The surveyed students are young and many are from small and rural towns in the South of Vietnam. Consequently, they probably have had no experience with online education. Also, they are generally not as active online and technically savvy as the students from big cities such as Hanoi and Ho Chi Minh. Even when encouraged, many students still do not dare to express their own opinions and are passive in engaging in classroom discussions. Also, during the lockdown, our students returned to their homes where they might not have a proper study room. Many students were distracted by the noises surrounding their houses. In addition, in some rural areas in Vietnam, the Internet signals could be very weak. Hence, lecturers need to be aware that the students, when studying at home, would not have a setting as ideal as they have at school. Muilenburg & Berge (2005) identified eight factors, which are barriers to students' distance learning: administrative issues, social interaction, academic skills, technical skills, learner motivation, time/support for studies, cost/access to the Internet, and technical problems. Therefore, Internet connection problems and technical skill shortages that hinder the teaching and learning process are understandable and predictable.

After a few quarters of online teaching, some of our lecturers observed that students' attention was reduced dramatically due to many reasons. Some students were distracted by the boredom of sitting alone. Others were still in their sleeping mode when the classes began and, consequently, decided to turn off their cameras. Class size was another problem; if a class had 30 students or more, the Google Meet platform could not display all the students' videos. This, in turn, reduced the lecturers' ability to control their classrooms and interact with students. Also, in some classes, Google Meet showed that students were online but not available when their names were called by lecturers.

To improve the quality of online education at BBS, a survey on 201 students was conducted. The results of this survey showed that 47 students admitted that there are problems with their online education. The most critical

problems were Internet connection, interactions between lecturer-student and among students themselves, noises, and students' insufficient attention to the lectures as shown in Figure 2 below. Thus, online education via platforms such as Google Meet, Zoom, etc. although proves to be quite helpful but still possesses limitations.

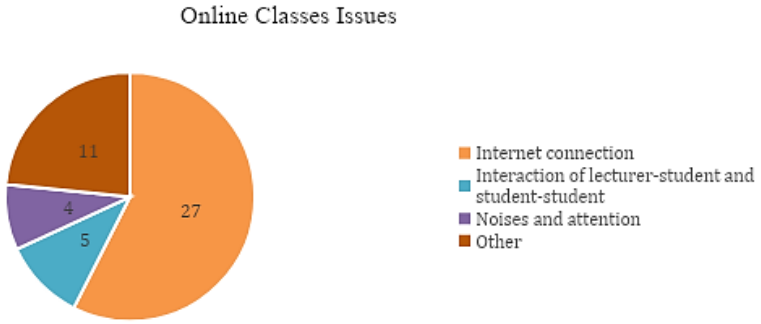


*Figure 2. Sources of problem in online classes*

However, it is quite positive that Becamex Business School employs a generation of young lecturers who are ready to adapt to changes. In coping with online teaching, many lecturers have proactively applied new methods to reinforce students' engagement and motivation. Two specific examples are project-based learning and case teaching. Specifically, the recent introduction and application of the Moodle Learning Management System (LMS) and Zoom Pro platforms can further improve the quality of online education because teachers can design many interactive teaching and assessment activities. Although mastering the Moodle platform is a challenge to many lecturers at first, it will benefit our students in the long term.

### *4.2. Recommendations for improving students' motivation and self-efficacy*

*4.2.1. Examples*

The suggestion from our own experience related to the examples used in lectures is that they should be student-friendly or familiar. If the examples are close to students' daily activities, they would more easily be imprinted into their minds. Sometimes, a relatable question could trigger students' minds much better than a long explanation. Thus, if lecturers give an example of a unrecognisable American firm, students may fail to perceive the message behind this example. However, if it's a Vietnamese firm such as Coteccons or Vinamilk, students will definitely memorise. This useful tactic is also discussed in a recent study by Riedel & Moll (2019).

*4.2.2. Teaching methods*

Compared to traditional face-to-face courses, online education fulfill students' basic learning needs of autonomy and competence, but not relatedness (Bowers & Kumar, 2015; Deci & Ryan, 2000; Ormrod, 2011; Wong, 2020). Therefore, lecturers can employ interactive knowledge delivery methods, which enable students to work in teams and share their thoughts freely with their classmates. For example, Kahoot is a free game studying platform that might be used as a concept checker or a warm-up tool. Miro platform is a live whiteboard where students and lecturers can type and share their brainstorming ideas. Both Google Meet and Zoom platforms give the users the option of creating breakout rooms to separate students into smaller groups where they can discuss with the support of the lecturer.

*4.2.3. Assessments*

Besides having clear rules for their online classes, lecturers should be creative and flexible with their assessments to provoke the students' self-learning. Thus, project-based learning (PBL) would be more efficient as they require students to work actively outside the classrooms and with others. PBL would meet students' basic learning needs compared with traditional methods of assessment such as examination, which are the important factors to the effectiveness of online education (Baird, 2005; Jacob & Radhai, 2016; Wong, 2020). Importantly, PBL should relate to the learning outcomes of the course and nurture problem-solving and teamwork skills. It would be more effective if these projects were altered to be Asian-friendly because our students may be more likely to understand the local cultural factors. At the same time, exams should be used less frequently and focus on critical thinking skills rather than memorizing skills.

*4.2.4. Seven principles for good practice in undergraduate education*

Lecturers can apply the seven principles (Chickering & Gamson, 1987) to help both the lecturers and students in online education. These principles are summarized as follows.

Principle 1: Encourage student-faculty contact

At the beginning of the course, and also during each lecture, the faculty/lecturer should remind students that they are welcome to send them messages for clarification or ask questions. Since the online classes are often less interactive than the traditional classroom style, the lecturer has to be more proactive in the lecture by not simply applying the direct teaching method where the teachers read and students listen. In brief, the lecturers need to guide the class discussion, set questions for students to participate in the chats and discussions.

Principle 2: Encourage students' co-operation

Instead of trying to communicate with every student and make them understand the ideas and concepts, the lecturer can use a more efficient method, by allowing them to work together for a group project (Chiriac, 2014). Thus, instead of understanding a class of 30 students, the lecturer should reduce his amount of work and only transfer his thoughts to the group leaders, which might be 5-6 leaders for a class of 30 students. After that, these leaders will communicate with their team members and motivate them to interact through the group work. With the approach of not taking care of everything, but sharing it with the students and letting them learn by themselves, the lecturers could achieve their purpose of increasing class participation.

Principle 3: Encourage active learning

There is no such rule that active students will receive extra points in the final score. However, the lecturer could be flexible to apply some strategies to encourage active learning in the online course. One of them could be extrinsic motivation. Small rewards to acknowledge the proactiveness of students in each lecture would be strongly effective if used appropriately. Besides, although the students cannot get extra points for being active, they can still get extra credits for finishing some optional assignment or homework, based on how the teacher assigned it in the syllabus. That is another form of extrinsic motivation the lecturer can create for his students. Based on the level of creativity, each lecturer can have a different strategy to motivate students to actively learn.

Principle 4: Give prompt feedback

The employees seem to work more efficiently when their bosses are in the office. The reason is that the employees are afraid of receiving bad feedback from the boss when they are not committed to their duties. This practice could be applied in the online education process where the lecturer considers the online class as the office and provides more prompt feedback to his students. Do not let bad things or bad ideas slip away easily with the thought of this is how the online class should be. Every mistake should be recognized, and any achievement should be rewarded, which will make the students perceive the importance of the class and get more motivation (Wong, 2020).

Principle 5: Emphasize time on task

Procrastination is a common bad habit among students. While applying the online class model, procrastination can be worse because problems with distance and technology make it difficult for the teachers and students to understand each other. Hence, at the beginning of the class, the teachers should emphasize time on task to decide what materials could practically be covered during the course, as well as inform the students about the time they should expect to spend on each activity in the course.

Principle 6: Communicate high expectation

Students who behaved inappropriately during the online courses may be kicked out of their classes. However, if their lecturers behave inappropriately during their lectures, they may not get any sanctions from the school. This fact does not sound fair and right to the students. So, if lecturers want to have high expectations from the students, then they need to be role models for their students in ethics, behaviour, work, and perception (Johnston et al, 2019).

Principle 7: Respect diverse talents and ways of learning

Life is different in the eyes of people coming from different backgrounds. Some people like history while others are interested in politics. Some find their souls with in-house activities while others only want to hang out for playing sports. For these reasons, good lecturers should be flexible to adapt to students' learning styles and talents. For example, instead of having only one topic in the group discussion, why not give two or three different topics about different aspects of life. Maybe students who are not interested in one topic are motivated to finish a different topic on time and over-expectation.

## 5. CONCLUSION

Online education - a technological-based platform with its advantages as flexibility, efficiency, accessibility, safety, affordability, is an important mode to provide education to learners, especially during the pandemic time of Covid-19. However, online education also poses some serious challenges to both educators and learners, including

poor Internet connection, lack of interaction between lecturers and students, noises, and students' insufficient attention to the lectures. To overcome these distractions, the lecturers can design their lectures to exploit student-friendly or familiar examples and project-based assessment. Also, lecturers are recommended to employ new technology-aided teaching methods and seven principles for good practice in undergraduate education.

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