

# **A Study of MOOC as a Digital Platform in Higher Education in Maharashtra**

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## **Abstract**

*Digital platforms of study are appearing as a strong medium of study in Higher education. Students can get access to the knowledge of the experts from any corner of the world. The flexibility of time, place and manner of pursuing the MOOCs are some of the major reasons behind the increase of the number of students. The pandemic had led to increase in use of MOOC platform as source of teaching & learning. The present study aims to survey the effectiveness, quality as well as loopholes of MOOC as a digital platform of study for those who pursue online studies as an alternative or supporting medium for the studies. The data collected is analysed to arrive at prominent conclusions and solutions to the problems faced by the students as well as teachers if any.*

*Though this paper does not comment on any one particular MOOC platform in an Indian context specially in Maharashtra State, the findings of this study showed a sizeable use and benefits of different MOOC platform and identifies the major characteristics of digital learning platform. Finally, the present article also highlights on the recommendation for MOOC in Indian higher education.*

**Keywords** – Higher Education, MOOC, Value-addition, Employability and Digital platforms.

## **1. Introduction:**

Indian higher education is reforming rapidly due to the various elemental factors. Boom of digital platforms, such as Massive Open Online Courses (MOOCs) can be counted as one of the reasons for it. MOOCs can be paid and unpaid generally offered by various renowned institutions and universities across the world. If observed closely, with the advancement of technology, MOOCs are popularised in India. A few reasons can be cited for this. MOOCs

offer moderate **flexibility towards course completion**. Students can pursue the course at one's own pace. Thus, it gives opportunity to the slow learner to follow the course according to the acquisition speed. So, there is no pressure on the student to match with the speed of other students in the class. There is also a huge scope for drilling practices. Students can watch the video several times until she/ he understands it well, which helps students for clarity of the concept and knowledge permanency. Another flexibility towards the course completion is **duration flexibility**. A few online courses offer duration flexibility in course completion; thus, a student can take extra time than the decided deadline to complete the course. Thus, the pressure of deadlines automatically relieves the stress of students. Students can start a course at any point of the day. Digital platforms are **not time-bound** like the physical classes. Thus, a student can pick any suitable time of the day for the study. Even, he/ she can follow different time slots according to the need and interest. Thus, time-flexibility can also be listed as one of the reasons behind the popularity of MOOCs. It can be mentioned as one of the crucial factors or benefits of MOOCs is the **spatial flexibility**. Students are not bound by the spatial limitation while pursuing MOOCs. They can pursue courses from and at any place of the world. A student from a distant country can pursue a course offered by an institute or university of another country. Thus, it is not spatial-bound. There is also no fixed limitation on the place, such as the fixed classrooms in physical-mode, from where a student can pursue an online course. Only pre-condition is availability of a better supportive network. **Accessibility-flexibility** can be cited as one of the major benefits and the reason behind the popularity of MOOCs. Students though not physically enrolled in the particular institution or university, if registered for an online course, can get access to the knowledge and guidance of the expert from any corner of the world. One can get easy access to the lectures of the renowned personalities from various fields at the tips of fingers at any point of time and from anywhere in the world.

## 1. Need of the study:

According to various surveys on higher education, Indian higher education system is third largest in the world after the United States and China. Rooted by the Chartered act 1813, Indian Higher Education system found its aperture through the Macaulay's famous controversial Minutes of 1859 as it opened doors to 'Western knowledge to the Orientals'. Indian Higher Education system has gone through several changes since then. Advancement in technology, brought reformations and lent a new face to education too. MOOCs started with the aim to provide a digital platform which provides opportunity to several students worldwide with a chance to receive access to distance education at the best universities or institutions. Stanford University in 2011 initiated MOOCs by offering their best expertise to the students all over the world changed the face of history of higher education as more than 160,000 students registered to learn jointly for the first time in the history of education. An ambitious MOOCs platform by Indian government is known as SWAYAM that imparts Indian Higher education in both; online and offline modes. Edx, Coursera, Udemy are some

of the other popular digital MOOCs platforms among the students. The number of Indian students pursuing MOOCs is increasing rapidly due to several purposes. MOOCs proved to be a supporting hand to the education system during the Covid-19 pandemic (2019) and thus, preferred by many students to continue their studies through the digital platform. Hence, it becomes necessary to trace various reasons for following these digital platforms by students. At the same time, it is highly important to know choice-based, need-based categories of MOOCs to define the benefits as well as loopholes of MOOCs. Thus, the present study attempts to trace the validity and utility of MOOCs as a digital platform in higher education.

### 1. Objectives:

1. To study the impact of MOOCs as a digital platform in higher education.
2. To understand the reasons behind persuasion of MOOCs by the students.
3. To understand the quality of study material provided such as video, ease of content, method of delivery, user-friendliness of MOOCs.
4. To understand the benefits and drawbacks of MOOCs.
5. To understand the contribution of MOOCs towards the enhancement of knowledge, skills and employability among the students.

### 3. Literature Review:

MOOC Learning Platform Development by Varun Gupta, Durg Singh Chauhan and Thomas Hanne

This empirical study investigates the issues faced in Massive Open Online Courses (MOOC). It especially focuses on the challenges faced during the execution of theoretical and practical sessions. The study undertaken in this book recommends a flexible online platform. It concludes by supporting a flexible approach that will be beneficial for studies like distance learning

‘MOOCs as a Digital Learning Platform’ by Maru Queen V. and Vel Murugan P.

This article talks about MOOCs as a digital platform of study and its role in education. It states that the major positive asset of MOOC is the unlimited enrolment number. Thus, any student from any part of the world can participate into the courses via video lectures, computer graded tests, and discussion forums. The research article also discusses various concepts like cyberspace - online courses, open courseware, video lectures, online education, online studies, open educational resources etc. It also reviews the famous MOOC platforms like courses, openculture.com, alison.com, iversity.com, khanacademy.com, swayam.gov.in, etc. The research claims that the MOOCs have brought new opportunities for innovative practices in higher education that opens a door for the academic institutions to venture through various online learning models and innovative practices in teaching and learning.

## Massive Open Online Courses (MOOCs), Features and Platforms

by Abhishek Kumar (INFLIBNET Centre, India) and Shweta Nishad Brahmabhatt (INFLIBNET Centre, India) in *Library and Information Science in the Age of MOOCs*, 2018, p.17.

This chapter supplies the latest status of the MOOCs as one of the subsets of e-learning. It is stated that MOOCs provide innovative ways of learning that is open for all, participatory in nature, distributed and lifelong. This chapter reviews the MOOCs offered by multiple prime universities. It also investigates in detail about the SWAYAM portal initiated by the MHRD, Government of India. It majorly focuses on the definition of MOOC, its features and various MOOC platforms used as an e-learning source for studies, such as edX, Coursera, SWAYAM, Udacity.

MOOCS IN Higher Education by Sung-Wan- Kim, in *Intech Open Book Series, An Open Access Peer-Reviewed chapter*, 2016

The present study talks about the major issues in higher education in the global scenario. It discusses the pros and cons of MOOC-based education. This chapter investigates the utilization of pedagogies and the limitations of MOOCs in the Higher education system. The chapter focuses on various aspects such as expansion and instructional strategies in MOOCs, functions MOOC platform, development of a MOOC, and future of MOOCs from the aspect pedagogical point of view. The chapter imparts some recommendations for the successful utilization of MOOC platforms based on the analysis of the current study.

Massive Open Online Courses (MOOCs) and Its Possibilities as Instruments of Formal, Nonformal, Informal and Lifelong Learning by Srdjan T et. al, in *IntechOpen Book Series*, 2016.

This chapter begins with the overview of implementation of ICT tools that influences the way of transformation of knowledge. It further differentiates the concepts of formal, nonformal and informal education. It also takes into account the system of education from a global perspective that leads on to the discussion on the implementation of MOOCs in the nonformal education system. Along with defining the concept of MOOCs, this chapter also talks about cMoocs, i.e MOOC Connectivism or Merger or Cooperation and xMOOCs. It further takes an overview of the development of MOOCs and significant MOOC platforms. It talks about the provider of MOOC courses, yearwise-list, and their profitability rate. It focuses on the various motivational factors behind enrolling in MOOCs. The chapter concludes with highlighting the importance of the MOOCs in the education system.

#### **4. Hypothesis:**

H<sub>0</sub>: There is a positive impact of MOOCs on students skill enhancement and employability.

H 1: There is a negative impact of MOOCs on students' skill enhancement and employability

H<sub>0</sub>: Student are motivated to learn through MOOCs.

H 2: Students are not motivated to learn through MOOCs.

H<sub>0</sub>: Students can easily access MOOCs.

H 3: Students cannot easily access MOOCs.

#### **5. Research methodology:**

Elaborative or survey methods have been applied for the present study. Primary data is collected through the questionnaires from students pursuing Higher education in various institutions in Maharashtra. The collected primary data is analysed through a simple percentile analysis method and Pearson correlation test. Secondary data is collected through various study papers, articles published in the various national and international journals.

#### **6. Sampling Technique:**

Convenient sampling method has been followed to select samples from the students pursuing higher education in Maharashtra.

#### **Size of the Sample**

The sample population consisted of 100 students.

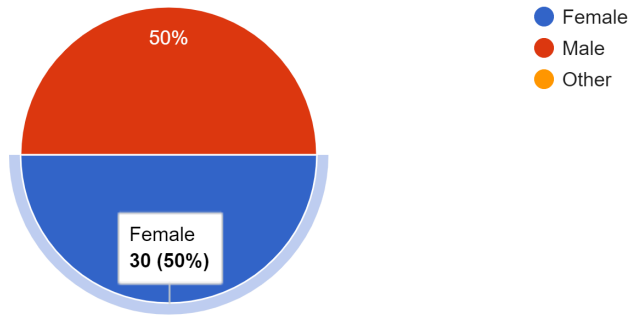
#### **7. Limitations of the study:**

The main purpose of the research is to study MOOC as a Digital Platform in Higher Education in Maharashtra and therefore the present study does not include higher educational institutions from other states. There are various educational as well as non-educational sectors influenced by the MOOCs, but the present study is restricted to the study of MOOC as a Digital Platform only in higher education in Maharashtra.

## 8. Findings:

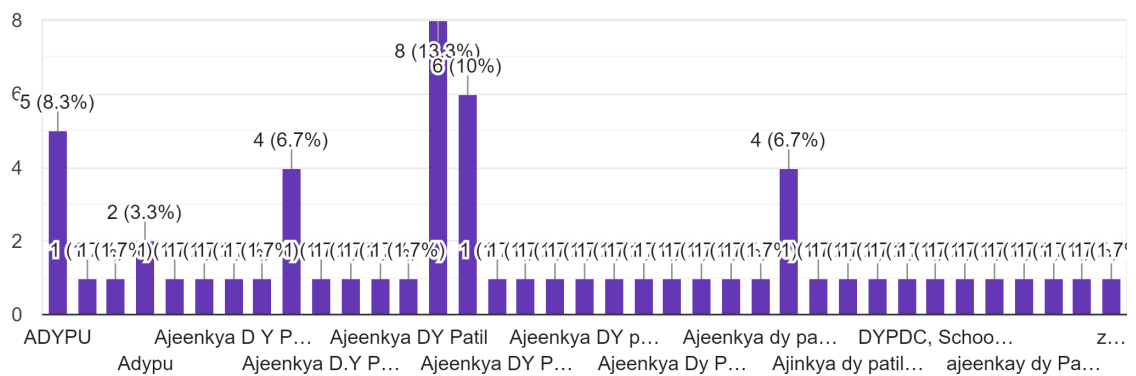
### Gender

60 responses



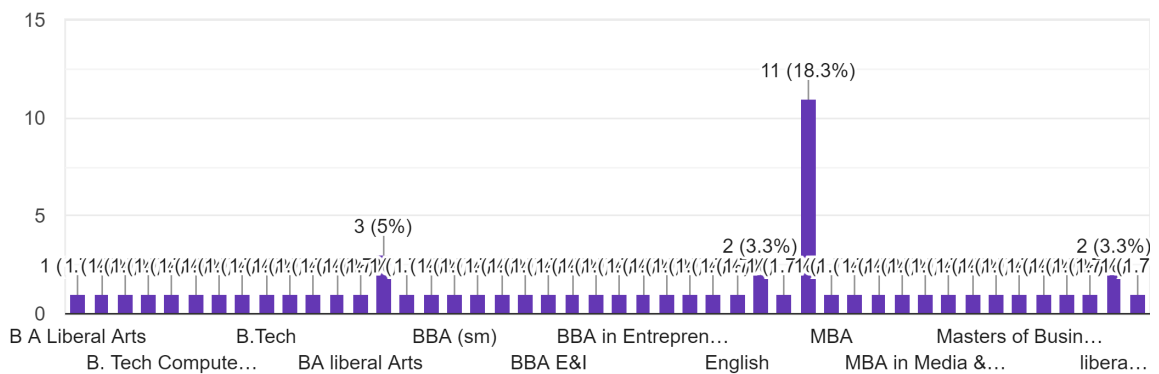
### College/ University

60 responses



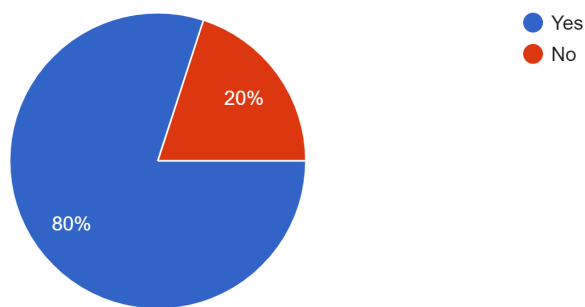
### Program

60 responses



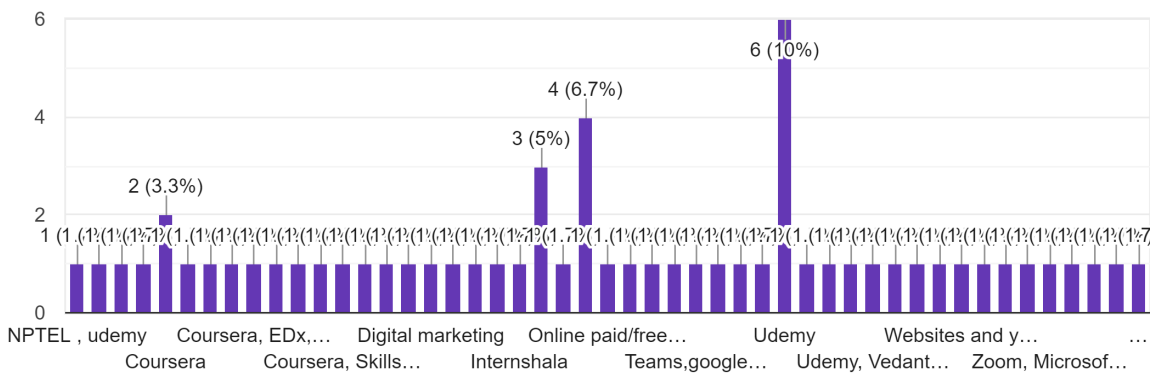
### 1. Do you know about different online learning sources?

60 responses



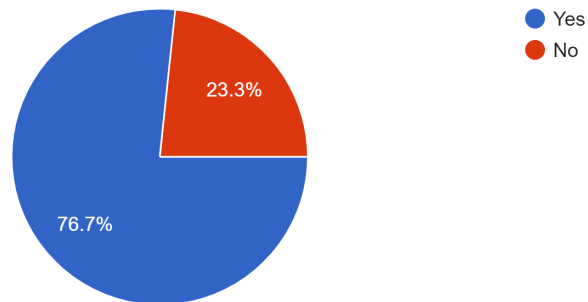
### 1 a) If yes, name them:

60 responses



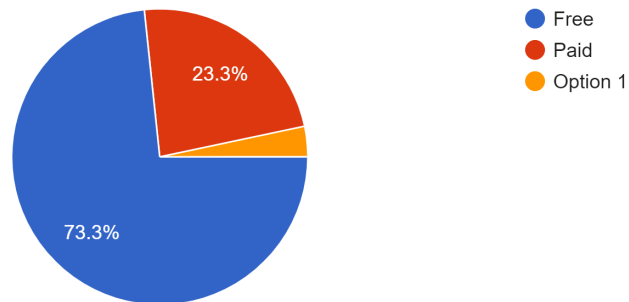
## 2. Have you ever enrolled to any MOOC course?

60 responses



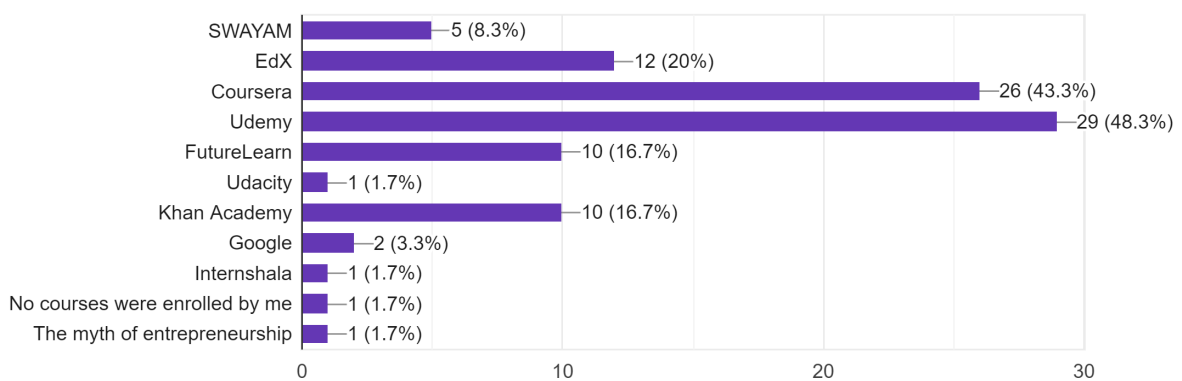
## Was it free or paid?

60 responses



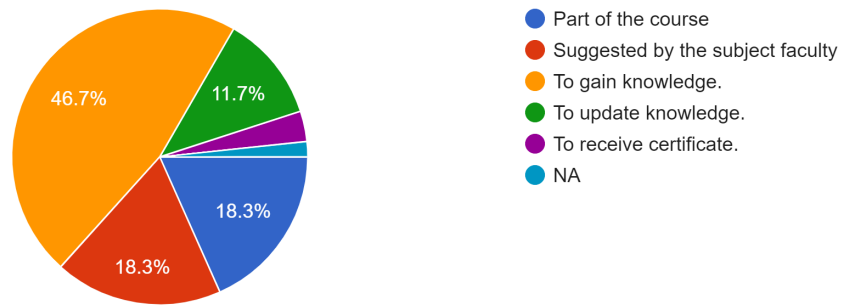
## 2. Which of the following MOOC courses have you enrolled?

60 responses

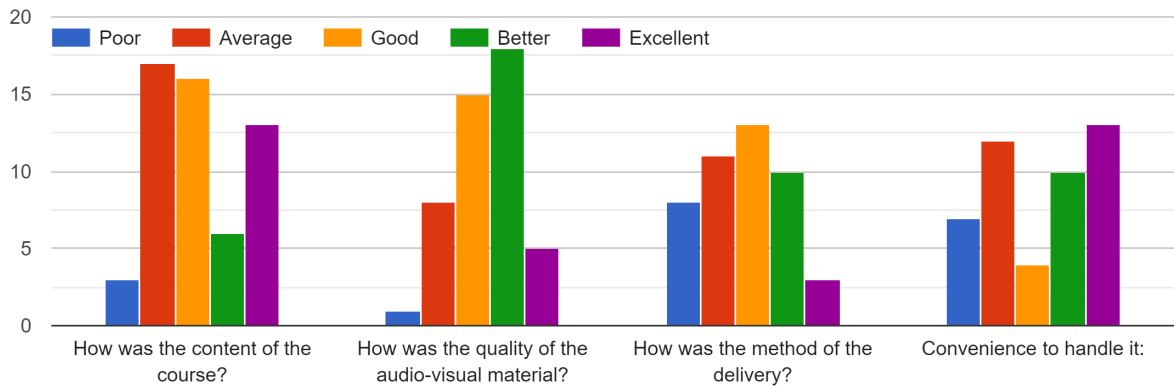


### 3) Reason for enrolling to MOOC:

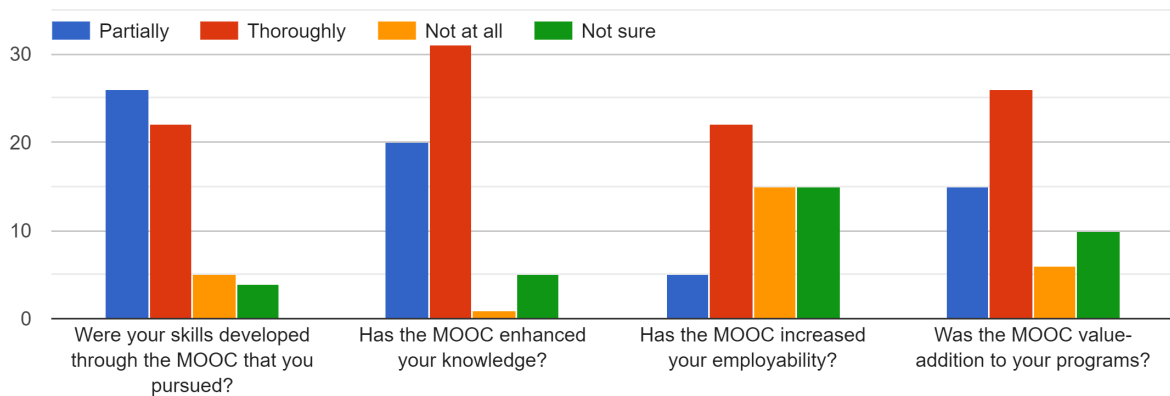
60 responses



### 4) Kindly rate the MOOCs you pursued into the following measures:

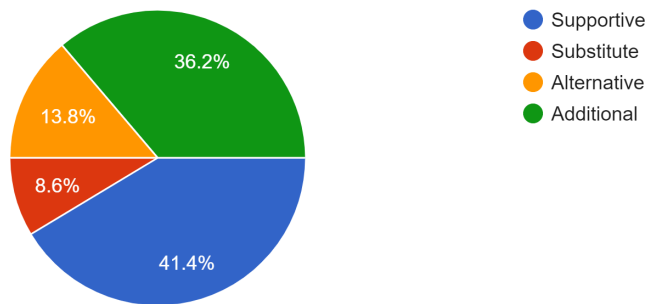


5) Kindly answer the following in yes or no.



6) How do you compare MOOC to the classroom teaching according to the following measures?

58 responses



### Analysis:

H<sub>0</sub>: There is a positive impact of MOOCs on students skill enhancement and employability.

H<sub>1</sub>: There is a negative impact of MOOCs on students' skill enhancement and employability

The Pearson correlation test suggested positive correlation with skills and negative correlation with the employability.

	<i>Course</i>	<i>skills</i>	<i>employability</i>
Course	1		
skills	0.9886 6	1	
employability	-0.016 3	-0.153 03	1

And hence the hypothesis is partially rejected as the skills is positively correlated

H<sub>0</sub>: Student are motivated to learn through MOOCs.

H<sub>2</sub>: Students are not motivated to learn through MOOCs

The hypothesis was tested using Z test to determine the motivation.

	<i>4</i>	<i>4</i>
Mean	10.5	1.5
Known Variance	1	1
Observations	4	4
Hypothesized Mean Difference	0	
z	12.7279 2	
P(Z<=z) one-tail	0	
z Critical one-tail	1.64485 4	
P(Z<=z) two-tail	0	
z Critical two-tail	1.95996 4	

As the p value is greater than 0.05 we accept the null hypothesis. Thus, as per the current data the students are motivated to learn through moocs

H<sub>0</sub>: Students can easily access MOOCs.

H<sub>3</sub>: Students cannot easily access MOOCs..

In order to test the hypothesis z test was carried out

z-Test: Two Sample for Means		
	4	4
Mean	10.5	1.5
Known Variance	2	1.3
Observations	4	4
Hypothesized Mean Difference	0	
z	9.90867	
P(Z<=z) one-tail	0	
z Critical one-tail	1.64485	
P(Z<=z) two-tail	0	
z Critical two-tail	1.95996	

As the P value is greater than 0.05 the null hypothesis is accepted. Students have easy access to the MOOC programs.

Conclusion:

The new era of technology paves way of innovative ways of quality education and teaching learning process. Such type of education is required in higher education to meet the challenges of privatization & globalization. To an extent MOOCs, a newest technology supported educational programmes will be of great help for higher education individuals irrespective of nation, social status and economic conditions. The study concludes MOOC Digital platform is used by students as is better way of skill development. It even helps to motivate students to learn through MOOCs as its easily accessible and provides quality of study material such as video, ease of content, method of delivery, user-friendliness way.

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