

## **IMPACT OF COVID-19 ON ONLINE EDUCATION SECTOR AND EDTECH COMPANIES**

**Mohit Sharma**

**Symbiosis Institute of Management Studies, Pune  
Symbiosis International (Deemed University), Pune, India.**

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### **Abstract:**

Education establishments (schools, colleges and universities) in India are generally focused on conventional learning approaches only, i.e. adopting typical lectures in a classroom face-to - face. While several university institutions have now begun to change up instruction, others are still sticking with old procedures. The unexpected appearance of Covid-19, a lethal disease triggered by a Crown Virus (SARS-CoV-2), shook the whole planet. It was deemed a pandemic by the World Health Organization. This threatened the worldwide schooling structure and pressured educators to turn to an electronic teaching approach overnight. Many learning organizations who were traditionally hesitant to shift their conventional pedagogic method had little choice but to switch to online education. The essay discusses the significance of the study of e-learning forms in crisis periods through online learning and capabilities, limitations, incentives and challenges. This paper also sheds some light on the development of EdTech start-ups through pandemic and environmental catastrophes and provides advice for college teachers about how to tackle online learning challenges.

### **1. Introduction**

Corona Virus, also known as Covid-19, is a lethal and contagious epidemic that has a significant effect on the world economy. This disaster has already rocked the education system, and the panic will reverberate internationally in the education industry. The pandemic epidemic in Covid-19 has caused several schools to briefly keep closed. There are many places around the world where are impacted and there is a concern that this entire semester will fail or much worse in the future. In-person instruction was disrupted by many classrooms, colleges and universities. According to the researchers' estimation, it is unclear to return to regular schooling in a limited period. As social isolation prevails, it will have a detrimental impact on learning experiences. At this point. School departments fail to identify answers to this tough problem. Those conditions remind us that preparation of situations for academic organisations is an immediate need (Rieley, 2020). This is a condition in which compassion and peace are necessary. Our teachers, teachers, scholars, families, cultures and the country as a whole are desperately required to be preserved and rescued.

E-learning is related to a variety of reasons. Any of the reasons pertaining to online pedagogies include usability, sustainability, versatility, digital pedagogy, sustainable digital and regulation.

Online learning is said to be readily available, including in rural and remote regions. Flexibility is another essential feature of online learning; a student can arrange or prepare his or her time to complete online courses. It may often offer a comparatively cheaper form of education for the lower travel costs, housing and overall costs of institution-based learning. Combining face-to-face lessons and technology produces mixed learning and fluctuating classes, and will serve to improve students' cognitive ability. In order to gain life-long schooling, students should grow about both circumstances and environments, and thereby acquire different skills. In this diverse environment, the government acknowledges the rising value of online schooling.

The extreme eruption of Corona Virus may even allow us conclude that online learning is a panacea in times of crisis, another statement in terms of schooling.

## **2. Literature Review**

### **2.1. Online Learning or E-Learning**

Rapid technical progress has streamlined distance learning (McBrien et al., 2009). Most terminology (online learning, free learning, Web-based learning, machine-mediated learning, mixed learning, m-learning, for example) all include the potential to use an NT-related device, which provides the possibility of studying from anywhere, at any moment, by any means (Cojocariu et al., 2014). Internet learning is described as digital activities utilising various devices (e.g. cell phones, lapping, etc.) with Internet connexion in synchronous or asynchronous setting. Students will know and communicate with teachers and other students everywhere in such settings (Singh & Thurman 2019). In order to organize the synchronous learning climate, students engage in live classes, there are real time encounters between instructors and learners, so immediate feedback is necessary, while asynchronous learning environments are not accurately tinted. Learning materials are not accessible as live seminars or courses in such a learning environment; they are accessible in various curriculum structures and fora. In these conditions, instant input and timely reaction are not feasible (Littlefield, 2018). A number of social networking incentives can be generated by synchronous learning (McBrien et al., 2009). In the middle of this deadly dissemination of the virus on these electronic networks, where (a) video conferences of at least 40 to 50 students are feasible, (b) conversation of students may be carried out in order to hold class organics, (c) Internet connectivity is excellent, and (d) seminars on mobile phones are available even and not only on computers.

### **2.2. Online Teaching Is No More an Option, It Is a Necessity**

The rest of the country in the field of quarantine is the product of the extreme epidemic of this worldwide pandemic, the Covid 19 pandemic, which has led to the growth of several towns into wonderful settlements. Betwixt may be considered the panacea of turmoil, both this electronic training and online learning. The Corona Virus has converted organisations from offline to electronic pedagogical approaches. This crisis could contribute to new technologies embracing organisations which have historically refused to adapt. This debacle tells us the profitable aspect of online learning. We can speak to a vast number of students at any moment and in any part of the world utilising online teaching modes. In order to leverage technologies more effectively, both organisations will seek out various ways in electronic pedagogical strategies. Many colleges worldwide have completely digitalized their activities in order to recognise this desperate need. Internet learning succeeds as a leader amid this mess. Therefore, enhancing the standard of online learning at this level is important. Online preparation has grown rapidly in Chinese universities despite the Covid-19 epidemic. Educators have adjusted their whole pedagogical strategy to address emerging industries and transition to transitions through the night in traditional classrooms into online classrooms. In this rough moment, there is no need to ask what quality education online training will do.

Why academic organisations should follow these large methods of online learning (Carey, 2020).

No educational entity worldwide would profit from opposition to transition. They would be measured due to their speed and their willingness to sustain consistency over such a limited time. The credibility of the schools is on the radar and is being scrutinised. How well you act and how well you manage your education level in the light of this crisis reflects your adaptability. The only logical alternative is to switch from one lecture to another into online courses. Indeed, educational institutions cannot turn all their curricula and all their infrastructure immediately into electronic services. The three main obstacles for online instruction are time, size and customised learning and curriculum. The only way we should live with this pandemic is to give organisations creative approaches (Liguori & Winkler 2020). The products of Google are also particularly helpful in circumstances such as (a) Gmail, (a) Web templates, (c) calends, (e) Web Hangouts, (f) Google Jam and drawing boards, (g) Google Classroom, and (h) Open Board applications (not a Google product), helps document meetings in t Such methods will effectively be used in face-to - face classrooms as substitute (Basilaia et al . , 2020).

### **2.3.Problems Associated with Online Teaching and Learning**

Numerous tools are essential for online learning, but they also pose other challenges. Such issues and concerns relevant to new technologies vary from mistakes to installations, deployment issues, authentication problems, audio and video problems, etc. Even online learning is tedious and uncompromising for students. Online learning requires so much access and versatility that it rarely needs effort for students to do it. Health treatment is still a significant concern for online learning. Students expect a two-way, yet challenging to enforce contact. When students experience what they read, the learning cycle cannot achieve its maximum capacity. Online learning is often abstract and does not enable students to practise and to know effectively. The quality of the medium course is also a significant question. Students believe that the biggest obstacles for online learning are lack of culture, technological challenges and problems in interpreting curriculum priorities (Songet al. 2004). In a sample, students were not adequately trained in an online learning setting to align their jobs, family and social lives with their research lives. It was also noted that students were improperly trained for seventeen e-learning skills and academic competencies. In fact, students are trained to utilise Learning Management Frameworks on a small level (Parkes et al. 2014).

### **2.4.Possible Solutions for Problems**

Many concerns apply to online schooling, but in times of such a crisis, we cannot disregard its advantages. Solutions to resolve these problems can always be found. Technical problems may be overcome by capturing video lessons, contents reviewing and having Plan B still ready to avoid the teaching-learning cycle. Dynamic, interest-intensive and collaborative online courses should be offered. Teachers will set deadlines and advise students to warn and to take note of them. The learning method will be rendered as humanly as possible. Students should be given personal attention to allow them to adapt easily to this learning environment. Social media and different group forums can be used to talk to students. Contact is the secret of attempting of attract students via email, different chat applications, images, etc. – material that helps students to learn and even develop their skills. The standard of the courses will continually be enhanced and teachers will make every attempt. In order to be innovative, engaging, relevant, student-centered and group-based, online courses should be developed (Partlow & Gibbs, 2003). Educators tend to expend a lot of time developing successful electronic feedback approaches. Efficient electronic tutorials provide learners with input, queries and expand the student's scope to include content (Keeton, 2004). (Keeton, 2004). Institutions will reflect on pedagogical problems and promote interactive research, case study, and project-based learning through online education.

The problem confronting educational organisations is not just to discover and utilise emerging tools but also to reimagine their curriculum and to thereby support students and university workers search for digital literacy guidance.

## **3. Objectives of the Study:**

1. To explore the growth of EdTech Start-ups and online learning.
2. To conduct Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of online learning during the Corona Virus pandemic and natural disasters.
3. To give some suggestions and recommendations for the success of online mode of learning during crisis-like situation.

#### **4. Research Methodology:**

The research explains the value of online learning in the midst of a recession and pandemics like the Covid-19. Online learning challenges and potential solutions have also been established based on earlier trials. In this crucial circumstance the SWOC review was carried out to obtain insight into diverse capabilities, limitations, prospects, and threats associated with online learning. A content review and comprehensive evaluation are the primary method used for interpretation of the data obtained from various sources for this report. The qualitative elements of the analysis sample have been taken into account. The secondary data are entirely focused on this report. The compiled literature received a systematic examination in depth.

Secondary sources of data used are (a) journals, (b) reports, (c) search engines, (d) company websites and scholarly articles, (e) research papers, and other academic publications.

##### **4.1. EdTech Start-ups in the Times of Corona:**

If we reach deeper into history and glance back through the years of EdTech, we will see that the Indian schools used writing slate in the 1100's. Johannes Gutenberg produced the 1440's first print media, Abacus helped students learn the principles of arithmetic in the 1600s, and Thomas Edison facilitated video clips as a backup for teachers in the year 1913. In 1927 the first teaching computer known as the MCQ system was developed by Sidney Pressy. The electronic education began at Illinois Universität in the 1960s and, eventually, with the advent of Educomp, India launched its journey with EdTech in 1994. EdTechs has recently entered the market around 2010, aimed at disrupting the education sector. Byju's was one of EdTech's most important learning applications in 2019. And many start-ups came to compete with Byjus from then on. Li Kang, Chief Executive Officer of Ai English said that online learning is the future and it took another two years if there were no virus so it was improved. EdTech Start-ups take every opportunity free of charge.

In the middle of this situation, online college classes. UNESCO also offered to help students in these tough times via these EdTech companies and applications. Digital payments, including Paytm, Mobiwik, Tez, PhonePe etc., evolved quickly during and after demonetization. EdTech's start-ups now look forward to better results in this pandemic epidemic. In order to make the best of this scenario, EdTech start-ups are offering their students many free courses and online services. Electrical supplies and a reliable Internet connectivity remain a bigger problem, despite the regular electricity shortage faced by many Indian towns and cities, particularly the small ones. According to the study, these corporations' efforts have already achieved. Your client base is growing a lot, only for a brief time, but it's just for the benefit if you can keep any clients.

Teachers or educators as an animator experience a great deal of problems as they interact for these EdTech start-ups when they start focusing about where it should be utilised, how obstacles for students can be minimised, how to develop the skills of students using EdTech. Student engagement is not enough. Pedagogues will ensure a neglected attempt to enhance student interest, maintain focus, seek input and review it in different forms. This provides an efficient and positive atmosphere for learning. EdTech cannot substitute a professor but will boost teaching. EdTech firms will be tremendous support for students in these challenging situations, under which Covid-19 required schools and colleges to stay totally locked up for several weeks because of the severity of the situation (Brianna et al., 2019). The EdTech market would flourish and would potentially hit around \$2 trillion by 2021, according to estimates by KPMG and Google. Some of EdTech's most renowned startups include Byju's and Adda247; Alolearning; AptusLearn; Asmakam; ClassPlus, CyberVie, Egnify, Embibe, ExtraaEdge, iStar, Jungroo Learning: Global Gyan; Lido Learning, Pesto, Pesto, Vedantu, Edubrisk, ZOOM Classroom; ZOOM Company, Toppr, Unacademy, Coursera, Kahoot,

Seesaw, GuruQ. The SWAYAM platform is an innovative training system launched by the Indian Government with a view to achieving three significant educational policy goals, namely exposure, equity and efficiency. SWAYAM's primary aim is online learning and digital differences elimination. It offers other free courses for colleges, lengths, students and postgraduates. SWAYAM is of great assistance to students across the world during the Covid 19 crisis.

#### **4.2.SWOC Analysis of Online Learning: During Corona Virus Pandemic and Other Crisis-Like Situation (Natural Disasters)**

Following certain natural hazards such as flooding, cyclones, earthquakes, hurricanes and so forth, it is a struggle to provide awareness. These threats interact in many forms with schooling in schools and universities. It may force schools and colleges to shut down, which has significant repercussions for students and prevents them their basic right to education and threatens them with potential threats. Natural hazards impact 100 million children and adolescents worldwide. Most facial school problems (World Vision). The most significant challenges to schooling are conditions of uncertainty and confrontation. Many students and teachers are confronted with psychological issues during the crisis – the loss of attention and concentration results in pain, panic, anxiety, depression and insomnia. Disasters are creating chaos in human lives (Di Pietro, 2017).

A that amount of severe weather incidents has become a modern standard, with evolving weather conditions and rising global temperatures. The costs to life and belongings of these incidents differed. Table 1 indicates a variety of environmental catastrophes that have created tremendous educational damage. Many hospitals and colleges have been devastated and thousands of children have died from such natural disasters. such natural disasters. In the process, their preparation was interrupted. Child labour, early matrimony, operations and recruitment into the armed forces will result in interruption of education (Baytiyeh, 2018). In cases of natural and humane disasters, schools and colleges need to be adaptive, and innovative forms of seeking education / learning are required (Chang-Richards et al., 2013).

Three strong and strong earthquakes have happened, for instance, in 2016. In the number of places this created immense damage. Around 1.00,000 residents became unemployed, houses and structures fell and life and properties became seriously destroyed. One of the oldest universities in the country, Camerino University has experienced a major setback. The institution was in trouble, the framework was broken, several students became unemployed and others quit the institution. Students have been refused schooling and learning in these cases. It is correctly stated that when the bridge itself crumbles, it becomes impossible to adhere to the conventional route. This indicated that face-to - face lessons were not available at the moment, and managers and members created strategies to promote schooling. E-learning at the university was slow until the devastation of the earthquake. But they were not hindered, and they used WebEx (an online tool) from Cisco to begin the teachings-learning method. WebEx helps teachers plan and exchange observations and diagrams with students in the preparation of their instructional programmes. The university had successful e-learning methods and techniques in approximately one month. They were fully incorporated into the field of e-learning. They thought, of course. that it is difficult to minimise the importance of the face-to - face teaching process however, along with new models of delivering professional content, e-learning can be used to increase performance, efficiency and profitability over certain rivalry (Barboni, 2019).

Christchurch and the University of Canterbury failed with a magnitude 6.3 earthquake in February 2011. IT and online learning led to the rebirth of the Institution, bringing it a second existence (Todorova & Bjorn-Andersen, 2011).

When the destructive hurricane created a Mess in New Orleans, the Southern University became an e-learning centre. There have been many educational courses and cell phones that have been used for teaching the displaced teeth (Omar et al., 2008).

The last tragedy is the Covid-19, which explodes across the planet like a forest fire. All the schools, universities and colleges in the most vulnerable areas face lockdowns to avoid their further spread. Therefore, several research organisations try the benefit of electronic learning to avoid the loss of teaching and learning practises. The online learning SWOC overview is shown in Figure 1.

E-learning has been increasingly common in India in recent years. Huge Free Online Courses provide students with accessible classes from several sites. Many Indian organisations were also hesitant to learn online. But the problems raised by the Corona Virus pandemic have taken us to a modern online and remote learning environment. Teachers offer them interactive teaching via a few collections of platforms, such as Google Hangouts, Skype, Adobe Connect, Microsoft teams, and a lot more. A collection of online tags was also shared with students in order to implement seamless teaching-learning programmes. Correct directions were given (Saxena:2020).

### 4.3.Strengths

Methods and processes of e-learning are very advanced. The benefits of the online modes of learning will save us from these tough times. It is focused on students and provides lots of time and venue versatility. The e-learning approaches help us to tailor our processes to the needs of the students. Many online resources are accessible that are essential to a secure and productive learning climate. In this moment of turmoil, educators should make use of a mix of audio, videos and text to meet their students and keep their lectures real. This will help create an immersive atmosphere for collective learning.

**Table 1. Natural Disaster That Affected Teaching–Learning Badly.**

Year	Naturaldisasters
2009	A violent earthquake in 9 the city ofL’ Aquila
2010	Floods inPakistan
2011	Tropical storm Washi in thePhilippines
2011	A series of earthquakes in NewZealand
2013	Tropical storm Haiyan in thePhilippines
2015	Gorkha floods inNepal
2017	Harvey and Irma Hurricanes in the UnitedStates
2017	Floods in Nepal, Bangladesh, andIndia
2018	An earthquake in Papua NewGuinea
2018	Earthquakes and tsunamis inIndonesia
2019	The typhoon Lekima inChina
2019	The typhoon Hagibis inJapan
2019	The tropical cyclone Idai in SoutheasternAfrica
2019	The heat wave inBihar

*Source.* Save the Children (2014, 2017), US News and World Report, & Briggs, 2018.



**Figure 1. The SWOC Analysis of Online Learning During Such Crises.**

Note. SWOC ¼ Strengths, Weaknesses, Opportunities, & Challenges.

Where students will automatically provide input, ask questions and understand in a clear way. In moments of crisis, e-learning's Anywhere-Anytime function is useful, e.g. man-made crises, nature catastrophes or pandemics such as Covid-19. Closing areas and dangerous roads will cause several challenges, but e-learning does not at least prevent us out of training at home or at college.

Innovative and durable approaches in crisis scenarios are given by technology

Fight interruptions and allow citizens to connect without face-to - face contact and even to function remotely. As a consequence, organisations implement emerging techniques for engagement and job alter several various processes (Mark & Semaan, 2008).

**4.4. Weaknesses**

Electronic learning has some drawbacks, in which basic interactions and physical contact are missing. It will inhibit the relationship between the learner and the instructor. There are also technological challenges that inhibit and hinder the learning cycle for consumers (Favale et al., 2020). While the power of online learning is time and localisation, these factors are delicate and trigger problems. Unconscionable time and efficiency habits can create several issues for students. All teachers and graduates are not the same, their qualifications and degree of trust are special. Some people do not feel confident studying online, which contributes to heightened dissatisfaction and fusion. Insufficient consistency between the system architecture and the psychology collaborator needed in the learning process; and insufficient personalization of learning processes is likely to impede the process of teaching and establish imbalances.

**4.5. Opportunities**

Online schooling usually has lots of options but, as most schools have adapted to this model, this moment of recession is growing in online learning. During the eruption of the Corona virus crisis (Favale et al., 2020), online study, remote research and e-collaboration broke out. Today, colleges will use their instructor and students to learn from their electronic curriculum to exploit this chance. People were still relaxed and rarely attempted modern learning techniques. This situation would signal a new level in online learning, allowing consumers to see the beneficial aspect in e-learning technology. This is the moment when groundbreaking inventions and new technologies are being brought to light. EdTech firms are now doing their best to help us counter the pandemic and not avoid studying. Teachers will learn development, develop and enhance their comprehension of specific adaptive systems for students. The application of online learning is evaluated by both instructors and students. This would strengthen the capacity of students to address challenges, to

think creatively and to adjust. Users of all ages can use the educational resources in this vital sense and benefit from the versatility in time and place associated with online learning. In this crisis scenario that is now named panicgogy, teachers should establish novel pedagogical strategies. In almost every field of schooling, from curriculum to preparation to instruction, studying, testing, performance, graduations, etc., start-ups at the EdTech Community have lots of chances to create transformative changes. In addition, growing consumer appetite for e-learning gives EdTech start-ups an excellent chance to carry in cyber- technical innovations in the education field.

#### **4.6.Challenges**

Online learning is faced with several problems like concerns related to students, instructors and material. Institutions have the difficulty of having students engaged and encouraging them to engage in the school cycle. Teachers are forced to shift their teaching methodologies and time from offline to online mode. Content that not only encompasses the programme, but also includes students (Kebritchi et al. 2017) is difficult to produce. It is a struggle to get professional e-learning courses. In its educational strategy on e-learning initiatives, the government has no specific stipulation. Quality assurance, quality management, e-resource distribution and e-content availability are missing. This issue should be dealt with so that everyone may profit from high-quality education through e-learning (Cojocariu et al., 2014). We must also take into account the creation and improvement of the content of virtual courses offered in such an emergency not just the benefits of taking online training during emergencies (Affouneh et al., 2020). E-learning requires a lot of effort and expenses. The initiative to provide computers and hardware, repair of infrastructure, training of human resources, and creation of the material web is not as simple as it appears, substantial expenditure is necessary. Therefore, it is important to establish an effective and reliable education network to provide education by on-line mode.

In this challenging moment, maintaining digital equality is critical.

The lack of sufficient digital resources, Internet connectivity and Wi-Fi links will create a great deal of difficulties as often students can miss timely learning. Institutions will make attempts to guarantee access to the necessary services for both student and faculty. They will insure too, if students don't have their computers, that all instructional applications operate on mobile handsets. Measures to reduce the digital gap will then be taken.

It's a well-known and real saying that makes a man good. Graduates and Professors from multiple institutions never even had e-learning studied. Some are self-sufficient and trapped with conventional teaching styles. The spread of the corona virus provides an incentive to make the most of the existing condition. Even this tough case, we will know a number. There are several methods, teachers will choose the right method for educating their students and incorporate it. Academic establishments should create a step-by - step guide that will direct educators and students how to navigate and utilise different e-learning resources and how to use them to cover relevant curricular material, thus minimising digital alphabetism. The programme can be viewed in different ways, i.e. images, audios and texts can be used. If educators incorporate video calls, interactive meetings and so on, it is important for them to get direct input and establish a close link to the students.

#### **5. Conclusions and Suggestions**

Ayebi-Arthur (2017) performed the study of seismic activity at a college in New Zealand. In her research, she observed that after this tragic incident the college was more resilient to online learning. In those tough days, innovations enabled them to conquer the challenges. However, they say that strong Technology for Online Learning is a prerequisite. Infrastructure will be so powerful that unimpeded infrastructure may be given before and during the crisis. The Covid 19 pandemic has affected how many citizens access and teach schooling, according to the World Economic Forum. We should incorporate some much-needed changes and reform in order to try fresh answers for our problems. Teachers are already unused to conventional instructional approaches as face-to - face seminars and therefore refuse to consider any improvements. Yet we have no choice but to adjust and to embrace the transition in the middle of this crisis. It would benefit the education industry and will offer other unexpected developments. Students who have limited exposure to the



new technologies cannot be overlooked or dismissed. These students are less wealthy and belong to less educated families with limitations on funding capital.

The expense of digital devices and internet service plans may result in a loss. This digital divide will deepen the disparity disparities.

This awful moment of life has shown us that everything is uncertain and that we must be willing to meet obstacles. While this epidemic did not allow us much preparation time, we will know from it that planning is the most crucial thing. All must be anticipated, irrespective if plan A fails, plan B must be organised. Only if we prepare situations will that be achieved. Both important and difficult circumstances that may arise need to be prioritised and prepared accordingly. This pandemic has also shown us that students have certain abilities to address problems, to think creatively and, most significantly, to respond to the situation. In order to ensure that these capabilities are present and prioritised in their graduates, educational institutions must create resilience in their processes.

Another main message would be to use e-learning before catastrophes! (Bjorn-Andersen, Todorova & 2011). Today, we are compelled to study online. If we had already learned it, it might have been different. The time we wasted to review the modes was spent making more material. Still late than ever it's great. The virus has definitely speeded up the online learning phase. For e.g., because of its viable features this e-application named ZOOM is attracting a lot of news. The software provides multimedia lectures, virtual forums, webinars, video chats and live meetings. As most schools, colleges, institutions, businesses and most people operate from home and are locked down because of lockdowns / curfews, this application helps to preserve the bond between people via video conferences. The app is leading in the current turmoil in Google Play Store. People practise social isolation, and they were reassured by this proposal. ZOOM also encourages corporate sessions to be held.

Hazards may persist and innovations are likely to help us handle such hazards (Meyer & Wilson, 2011). Don Dippo, the Borderless Higher Education Co-Core Investigator for refugees, said that we are in a region Conflict and degradation of the world. A number of citizens can exist in unstable environments, families and neighbourhoods. The ability to improve, involve and provide these individuals with resources would never be as strong as required for post-Secondary institutions. The only way we can really make a difference here is by trying to collaborate and cooperation through organisations, through time and space. The only way to achieve so really is to focus on technology to build opportunities for people to function together.

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