Research Article

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Opportunities and Barriers to Disabled Students in Higher Education: An Explorative Study of Visually Impaired Students of Aligarh Muslim University India

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Abstract

The aims of the present study to investigates the opportunities and barriers that visually impaired students face in higher education at Aligarh Muslim University (A.M.U.). For this study, 20 students, including 15 (75%) males and 5 (25%) females, were interviewed based on the availability of visually impaired students. The result of this study reveals that the visually impaired students experienced three major types of barriers in the university, i.e., barriers in infrastructural accessibilities, barriers in accessing study materials, and in classroom learning.

Keywords: *Visually Impaired; Higher Education; Barriers, A.M.U.; RPWDs Act, 1995, 2016; WHO*

1. Introduction

According to World Health Organisation (WHO 2011), an estimated fifteen percent (15%) of the world's population is affected by some form of impairment; among them, 2% to 4% have severe difficulties in functioning. The prevalence of disabilities worldwide is higher than prior WHO estimates from the 1970s, which estimated a rate of 10%. This global estimate of disability is increasing as a result of the aging of the population, the rapid spread of chronic diseases, and procedures for measuring disabilities are improving. Whereas, according to the Census of India 2001, 21,906,769 (2.13%) of the country's total population were disabled, which has increased to 26,814,994 (2.21%) in the 2011 Census. The census of 2011 also revealed that 20% of total disabled persons having disability in movements, 19% have a disability in seeing, 19% in hearing, and 8% have multiple disabilities in India. WHO (2002) defined disability *as "a problem in body function or structure, an activity limitation, has difficulty in executing a task or action, with a participation restriction,"* is considered disabled. At the same time, there are 253 million people in the world who are blind or

suffer from some other form of vision loss, representing 3.2% of the world population. (Disabled People in the World: Facts and Figures, Okeenea Group, 2022).

The world's highest population of blind people lives in India. According to a study carried out between 1986 and 1989 under the auspices of the World Health Organization and the National Programme for Control of Blindness, an estimated 12 million people are blind in both eyes, and 8 million people are blind in one eye. A further 2 million people have lost sight due to traumas, vitamin 'A' insufficiency, trachoma, and corneal abnormalities brought on by corneal opacity (Kitchlu, 1991). Vision loss indicates that a person's vision may not be "normal." *Low vision* is defined by the WHO as visual acuity between 20/70 and 20/400, with the best possible correction, or a visual field of 20 degrees or less, while *blindness* as visual acuity of less than 20/400 with the best possible correction or a visual field of fewer than 10 degrees (RPWD Act, 2016).

1.1 Understanding Disability

The understanding of disability is a subject of intense debate and discussion. For a very long time, people with disabilities have always been viewed as matters of charity or simply from a medical or individual point of view. The medical model of disability is explained by World Health Organization (WHO 2002) as "the medical or individual model views disability as a feature of the person, directly caused by disease, trauma, or other health condition, which requires medical care provided in the form of individual treatment by professionals." Various disability activists have criticized this medical or individual model of disability, arguing that society creates barriers for physically challenged persons to join mainstream social organizations (Oliver, 1996; Giddens, 2009; Mitra et al., 2018). Therefore, this model of disability is called the social model of disability.

The difference between physical impairment and disability led to the idea of the social model. In 1976, the Union of Physically Impaired against Segregation (UPIAS) wrote a document called "Fundamental Principles" that argued for and spread the idea of this difference. The social model of disability is defined as "the disadvantage or restriction of activities caused by a modern social organization that doesn't or doesn't take into account the needs of people with physical disabilities and, as a result, keeps them from taking part in most social activities" (WHO, 2002; Giddens 2009, pp. 416; Mitra et al., 2018).

In 2001, the WHO issued another model for defining disability called International Classification of Functioning, Disability, and Health (ICFDH), more commonly called the I.C.F. model of disability. The I.C.F. has features of both the individual or medical and social models. According to the WHO, a person with a health condition becomes disabled when their health condition interacts with their environment, which includes their physical, social, and attitudinal environments. This model starts with a health condition (disorder or disease) that causes impairments, activity limitations, and participation restrictions due to contextual factors. Impairments are body function or structure problems such as a significant deviation or loss. Activity Limitations are difficulties an individual may have in executing activities. Participation Restrictions are problems an individual may experience in life situations (WHO, 1980; 2001; Giddens, 2009; Mitra et al., 2018).

1.2 Blindness and Education

Being blind is not a sin. Blind persons can achieve their goals with commitment, effort, and perseverance. Many blind people have achieved success in a variety of fields. The education, training, rehabilitation, and employment of the blind in the nation have advanced significantly over the past century. Just before the outbreak of the French Revolution, people in France began to get attention toward blind persons. Around the same time in India, activists, academicians and philanthropists started paying attention to people who were blind. As a result, in 1887, Miss Anne Sharp founded the first school specially designed for the education of visually impaired students in Amritsar (Kitchlu,

1991). After various educationist and philanthropist started many other special schools in the different parts of the country, as Jane Leupot opened a school for the 'blind' in Banaras in 1869. Mrs. Jai Vakil also opened a school for the 'intellectually' disabled in Bombay in 1941, etc. (Puri and Abraham, 2004, pp. 19). Following the disability rights movement that was initiated in the 1970s and 1980s, governments worldwide started placing a significant emphasis on higher education opportunities for blind students. In India, the pace of higher education for the disabled has increased since the enactment of the RPWD Act 1995. The Central and State Governments have shown interest in the socioeconomic rehabilitation of the visually impaired persons and have launched several measures to formulate legislation, create programs, and implement them. The government of India has allocated funds through different Five Year Plans and other comprehensive schemes/programs for the educational development of disabled students, including the blind.

1.3 Laws for Persons with Disabilities

Many conferences and conventions have been organized globally to remove barriers in the education of students with disabilities (SWDs), such as *Standard Rules on the Equalization of Opportunities for Persons with Disabilities* adopted by the United Nations General Assembly in 1993, *Salamanca Statement 1994*, *United Nations Convention on the Rights of Persons with Disabilities* (UNCRPD 2007) etc. The central theme of all these conferences and conventions is that educational institutions should be made disabled-friendly so that their full participation in education can be determined. As a result, many policies and acts were made for the education of disabled students worldwide and in India. India is a democratic country that has tried to formulate plans and programs adhering to the principles of justice and equal opportunity for its people. India is a signatory to almost all United Nations treaties and declarations and has introduced innovative laws and programs for the education of SWDs to keep pace with the rest of the developed world (Jameel, 2011).

In this connection, for the first time in 1995, the Government of India enacted a comprehensive law for PWDs called the "*Persons with Disabilities ((Equal Opportunities, Protection of Rights and Full Participation) Act."* The Act emphasizes equal opportunities for PWDs in every walk of life, including education. For example, the Act stipulates that all higher educational institutions reserve 3% seats for admission to PWDs. This Act also emphasizes barrier-free education for PWDs like all institutional education infrastructure and other essential requirements should be disabled friendly, provide equal opportunities in employment, social security, etc. (PWDs Act, 1995). After a few years of enactment of the PWDs Act, the Government of India introduced programs such as *Teachers Preparation in Special Education* (TEPSE) and *Higher Education for Persons with Special Needs* (HEPSN) in 1999-2000 intending to develop courses for special teachers and counselors as well as providing facilities in various forms for people with disabilities. In 2005, the Indian government formulated the "*Action Plan for Inclusive Education of Children and Youth with Disabilities (IECYD)"*. This action plan emphasizes SWDs pursuing higher education (Jameel, 2011; Mistry, 2012; Ahmad, 2018). The PWDs Act 1995 was replaced by the Government of India with a new Act called the *Rights of Persons with Disabilities Act, 2016,* to give effect to principles of the *United Nations Convention on Rights of Persons with Disabilities* (UNCRPDs 2007) in India and further strengthen to the P.W.D.s Act of 1995. In this Act, the reservation policy for PWDs in higher education has been increased from 3% to 5% and in employment to 4%, and types of disabilities was expanded from 7 to 21 types (RPWDs Act, 2016).

Despite this, they still face many barriers such as architectural, infrastructural, lack of accessible study materials, attitudinal barriers, including lack of understanding and cooperation from administration, faculty, staff and students without disabilities, and support barriers (Preeti & Kiran, 2012).

2. Review Literature

Education for persons with disabilities (PWDs) has been a significant concern in India and worldwide for decades (Ahmad, 2018). It is a global environment in which only a little attention has been paid to the concerns of access, development, and engagement of students with disabilities (SWDs) in higher education institutions. As stated in the Sustainable Development Goals (S.D.G.s), the education of students with disabilities has become a critical theme in academic circles worldwide (Jahan, 2015). Similarly, the Incheon manifesto stipulates that educational goals should not be accomplished until everyone has reached them. Therefore, it is pledged that the marginalized section of society, especially those with disabilities, will be the main focus of all education policies (UNESCO, World Education Forum 2015).

Alqaryouti conducted a study on "*Inclusion the Disabled Students in Higher Education in Oman,*" including *28* physically and visually disabled students in Sultan Qaboos University (S.Q.U.) in 2010. The results of the study revealed that compared with physically challenged students, the visually disabled had social difficulties. This may be due to their inability to communicate with others, feelings of abandonment, or a lack of activities that allow visually impaired students to interact with their peers normally inside the university, all of which have led to the distance would have increased. Pivik et al. (2000) conducted a study on *"Barriers and Facilitators to Inclusive Education,"* and they found that the SWDs face four kinds of difficulties in the education institution i.e., physical difficulties (such as narrow doorways or ramps); purposeful psychological/attitudinal difficulties (such as bullying or isolation); unintentional psychological/ attitudinal difficulties (such as a lack of knowledge, understanding, or awareness about the sense of disability); and finally, physical obstacles (such as difficulty with manual dexterity). According to Mistry's (2012) study, SWDs at their universities did not have easy access to classrooms, libraries, academic buildings, or administrative offices. In addition, they were not given any educational resources, including assistive technology, to use in their studies. Bano et al. (2013) conducted a study on "*Analysis of educational facilities and opportunities for students with special needs at the University of the Punjab, Pakistan.*" The result revealed that SWDs encounter various problems at higher education institutions, including improper curricula, learning challenges, flawed teaching practices, and a lack of equipment, which significantly affects their performance in a normal or inclusive setting. According to the findings of the research conducted by Ganapathy (2014), SWDs put in a more significant amount of effort to keep up with the requirements of their studies, took part in fewer social and extra-curricular activities, and relied more heavily on study aids, fewer instances involving computers and other information technology.

3. Methods of the Study

The present study were conducted on visually impaired students studying in higher education at Aligarh Muslim University (A.M.U.) from March to April 2022. For this study, 20 students, including 15 (75%) males and 5 (25%) females, were selected based on availability for the interview. Out of the total respondents, 9 (45%) reported themselves as an undergraduate (U.G.), 7 (35%) postgraduate (P.G.), and 4 (20%) respondents said themselves as Ph.D. students. All of these respondents are from social science and art streams.

For data collection, a semi-structured interview schedule was prepared. Before conducting the interview, the researcher contacted the interviewer to schedule the time and place of the interview. And therefore, the researcher interviewed by reaching the place and time specified by the interviewer. For the analysis of data, we have used the Statistical Package of Social Sciences (SPSS) for the best results and interpretation.

3.1 Challenges/Barriers Faced by Visually Impaired Students in the University

The word barrier-free refers to a setting where all users have access to the required services regardless

of their disability. The need for a barrier-free environment will be unparalleled in terms of infrastructure to ensure the convenience, safety, and independence of P.W.D.s. During the construction of buildings, special attention should be paid to certifying that P.W.D.s have access to the same facilities as students without disabilities have. As mentioned above, the Government of India has enacted various laws prohibiting barriers against persons with disabilities to promote full and equal participation in all aspects of their lives, including higher education, through which they can explore the possibilities of their life.

Nevertheless, Despite this, disabled students continue to face different challenges in the study and acquisition of knowledge and hurdles to access and use of infrastructure. These obstacles and barriers come in various forms and vary by institution. In this study, we have found three significant barriers experienced by visually impaired students at A.M.U., which are as follows.

1. Availability, accessibility, and barriers to infrastructural facilities
2. Availability and barriers to accessing the study material
3. Accessibilities and barriers in classroom learning

3.2 Availability and Accessibility of Infrastructural Facilities

During the infrastructural investigation in the university, it was found that the university has such infrastructural facilities, i.e., Classroom, Seminar room, Library, Administrative Offices, Hostel, Dining Hall, Washroom, Canteen, and Commonplaces (i.e., common room and playground) for all students including visually impaired students. The accessibility of these infrastructural facilities for visually impaired students is presented in Table 1.1.

Table 1: Easy Access to Infrastructure of the University

Easy Access to Infrastructure	**Yes**	**No**	**Total**
Classroom	11 (55 %)	9 (45 %)	20 (100 %)
Seminar room	12 (60 %)	8 (40 %)	20 (100 %)
Braille Library	13 (65 %)	7 (35 %)	20 (100 %)
Administrative Offices	10 (50 %)	10 (50 %)	20 (100 %)
Hostel	17 (85 %)	3 (15 %)	20 (100 %)
Dining Hall	18 (90 %)	2 (10 %)	20 (100 %)
Washroom	18 (90 %)	2 (10 %)	20 (100 %)
Canteen	16 (80 %)	4 (20%)	20 (100 %)
Common Places	13 (65 %)	7 (35 %)	20 (100 %)
Average Ratio	**71.11%**	**28.89%**	**100 %**

Source: Primary data collected by researcher

Table 1 shows that out of the total respondents, on average, 71.11% have easy access to the infrastructures of the university. Among them, dining halls and washrooms are the most easily accessible, i.e., (90%), followed by hostels (85%) and canteen (80%) as compared to other infrastructure of the university. Whereas the lowest accessibility rates can be seen in administrative offices and classrooms, with 55% and 50%, respectively. Look at the bar chart 1.1 shown below to better understand visually impaired students' access to infrastructural facilities.

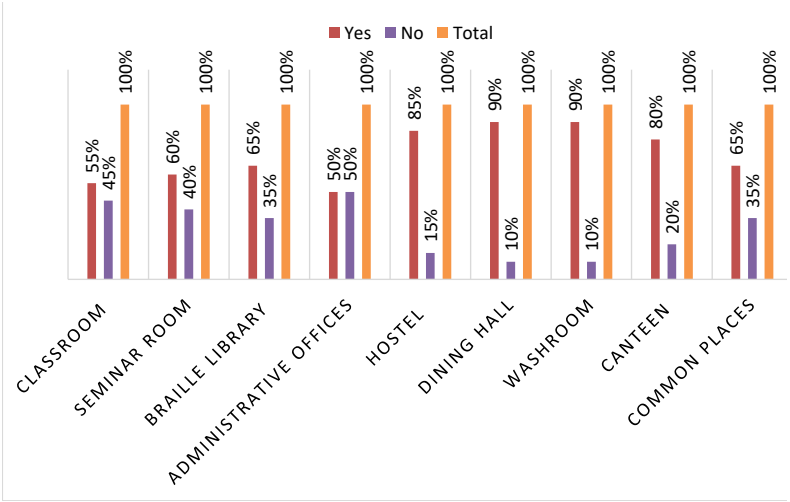

Figure 1: Represents the accessibilities of the infrastructure

3.3 Accessibilities and Barriers to Architectural facilities

The researcher also observed that the university infrastructure has special facilities, such as a lift with audio and Braille text, stairs, railings, and ramps as architectural facilities for visually impaired students. Although the availability of tactile walkways in academic buildings, hostels, and administrative buildings is extremely significant, the university does not have this facility for its visually impaired students. The accessibility of these architectural facilities to visually impaired students is presented in Table 1.2.

Table 1.2: Represents the accessibility of the architectural facilities

Gender		Completely Accessible	Partially Accessible	Not Accessible	Total
Male	N	10	4	1	15
	% within Gender	66.7	26.7	6.7	100.0
Female	N	2	3	0	5
	% within Gender	40.0	60.0	0.0	100.0
Total	N	12	7	1	20
	% within Gender	60.0	35.0	5.0	100.0

Source: Primary data collected by the researcher

The above table shows that 60% of the respondents have complete access to the architectural facilities of the university, like lifts, stairs, railings, and ramps. In comparison, 35% of the respondents say that these architectural facilities are partially accessible to them, only 1 (5%) respondents reported that these are not accessible. To better understand the accessibility of the university's architectural facilities, see bar chart 1.2 below.

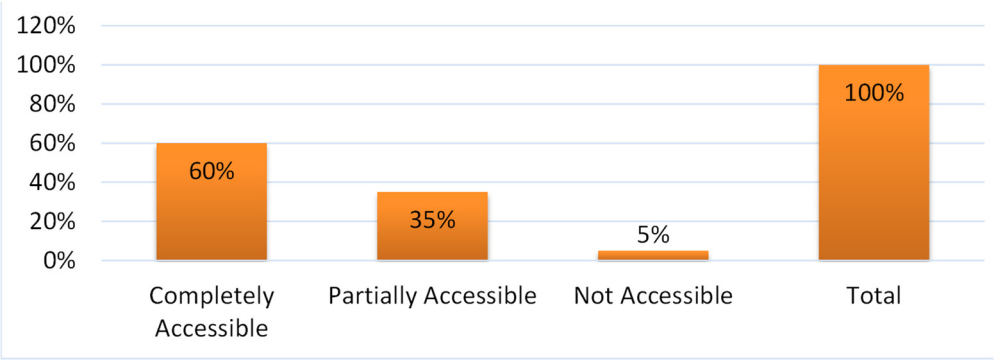

Figure 2: Represents the accessibilities of architectural facilities

3.4 Availability and Barriers to access the Study Material

According to visually impaired students, the Braille library only has audiobooks, and to some extent, the facility of e-books is also available. Still, there is no additional material that is available in Braille script. However, this study material is not sufficient for them. It is essential to make it clear that these respondents do not use the university's central library because there aren't any resources available for their learning process as per visually impaired students. Due to the lack of adequate study materials in both the central and braille libraries, these students confront various obstacles. In this connection, the table below represents the barriers visually impaired students face in accessing the study materials.

Table 2: Represents the barriers faced by visually impaired students in accessing the study materials

Gender		Barriers to accessing the study materials		Total
		Yes	No	
Male	N	8	7	15
	% within Gender	53.3	46.7	100.0
Female	N	1	4	5
	% within Gender	20.0	80.0	100.0
Total	N	9	11	20
	% within Gender	45.0	55.0	100.0

Source: Primary data collected by the researcher

As we have mentioned above, the Central and Braille Library of the University has a scarcity of study material in an accessible format for visually impaired students, due to which they face various difficulties in accessing the study material. Table 2 demonstrates that 45% of the respondents have problems obtaining access to the study materials following their course curricula whereas the majority, i.e., 55% have no problems. See bar chart 2 for a clear understanding of visually impaired students' challenges while accessing the study materials as per their requirements.

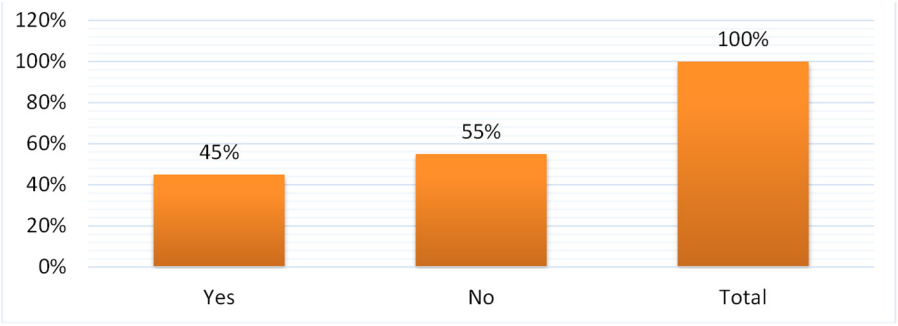

Figure 3: Represents the barriers to access the study materials

3.5 *Accessibilities and barriers in classroom learning*

Visually impaired students of the university also face barriers in classroom learning. The data of respondents facing barriers in classroom learning is shown in Table 3.

Table 3: Showing the Barriers in Accessing the Study Materials

Gender		Barriers in Classroom		Total
		Yes	No	
Male	Count	7	8	15
	% within Gender	46.7	53.3	100.0
Female	Count	2	3	5
	% within Gender	40.0	60.0	100.0
Total	Count	9	11	20
	% within Gender	45.0	55.0	100.0

Source: Primary data collected by the researcher

The above table shows that only 45% of respondents face barriers in classroom learning when teachers deliver lectures, of which 46.7% are male and 40% are female students. However, the majority of 55% of respondents do not encounter any obstacles in classroom learning.

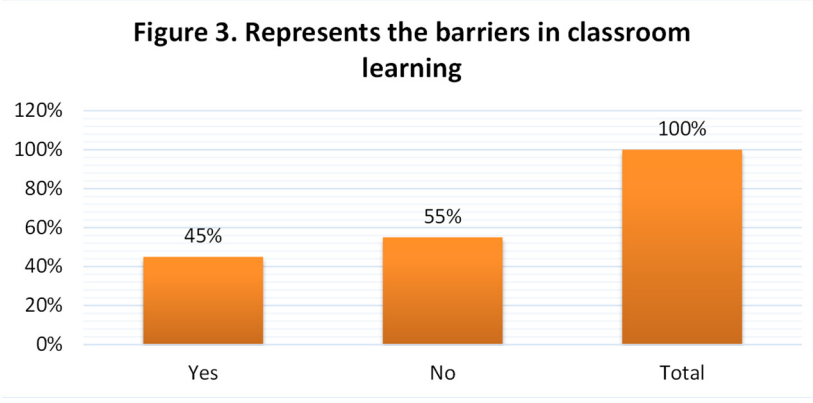

Figure 4: Represents the barriers in classroom learning

4. Major Findings and Discussion

The researcher's investigation reveals that the university has all of the infrastructural facilities; however, it does not have the necessary fundamental architectural facilities, such as tactile walkways, sound signals, the number of rooms written in braille text, and so on. Consequently, visually impaired students have to contend with a certain degree of difficulty when attempting to access the university's architectural and infrastructure resources. Whereas it is prescribed in the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD 2007) and Rights of Persons with Disabilities (RPWDs) Act, 2016 that every public and private institution should have the disabled-friendly infrastructure and architectural facilities.

This study also reveals that the Central and Braille Library of the University has a scarcity of study material in an accessible format for visually impaired students, whereas only few study materials are available in audio and e-book formats in the braille library is insufficient to them. Because of this, visually impaired students face many challenges in getting the study material as per their requirements. Whereas, following several conventions, treaties, and the RPWDs Act 2016, it is of utmost importance for the institute to provide study material to every student in an accessible format as per their requirements.

It is found that visually impaired students face challenges in the classroom for various reason, including the fact that their teachers are unable to satisfactorily explain the concepts written on the whiteboard during lectures because they lack the necessary training. These students also experience feelings of exclusion from their peers who are sighted because they are not talking to appropriately. To ensure that students with disabilities are not hampered in their academic progress, it is mandated by many conventions and the RPWDs Act of 2016 that institutions should apportion qualified and trained teachers to teach these students.

5. Recommendation

- The university should conduct periodic surveys of physical access to visually impaired students and other facilities, such as the availability of study materials in accessible formats, modern assistive technologies/devices, etc. so that these deficiencies can be identified and addressed.
- The university must provide study materials in accessible formats to visually impaired students, such as Braille books, audiobooks, or as per the requirement of their needs.
- Visually impaired students need additional technology to access materials such as screen readers, text-to-speech apps, Braille material, and video magnification, which make their learning more accessible.
- The professors should provide a copy of the lecture to the visually impaired students. Because visually impaired students are unable to view PowerPoint or other lecture visuals. The materials should be delivered in Braille or as a digital copy that students can view on their devices during the lecture.
- The university should appoint trained teachers to teach visually impaired students.
- Both teachers and peers need to be aware of the condition of visually impaired students to make the classroom disabled-friendly, and they do not feel that they are being excluded.

6. Conclusion

This study shows that the visually impaired students of the university face three major types of difficulties such as accessibility to infrastructure, study material, and barriers in classroom learning. These difficulties arise from various reasons such as the university buildings do not have tactile walkways nor any indication to access the classrooms and other necessary office rooms. Additionally, visually impaired students also have to face difficulties due to a lack of study material in accessible

formats and trained teachers. Because of these difficulties, the university needs to take a substantial step toward ensuring that visually impaired students can participate in all aspects of the university's activity to their full potential. Therefore, it requires the awareness of the teaching, non-teaching staff, and students without disabilities about the special needs of visually impaired students.

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