A Policy Brief

TOWARDS AN INCLUSIVE DIGITAL SOCIETY: ENABLING PEOPLE LIVING WITH DISABILITIES TO ACCESS AND USE DIGITAL SYSTEMS FOR EDUCATIONAL PURPOSES IN NIGERIA

CITAD

CENTRE FOR INFORMATION TECHNOLOGY AND DEVELOPMENT

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INTRODUCTION

In 2018, the UN Secretary General set up a High-Level Panel on Digital Cooperation, which submitted its report in June last year. One of the recommendations of the Panel was that "every adult should have affordable access to digital networks, as well as digitally-enabled financial and health services, as a means to make a substantial contribution to achieving the SDGs". This has even much more relevance for the education sector with its increasing migration to online and the use of the internet as a key tool for learning. Earlier, the UN had adopted digital rights, including the right to internet as the fourth general rights and a clarion call that no one should be left behind. It is easy to think that to be left behind means left behind in terms of embracing digital life. That is not correct but it is more than that. Digital systems are tools for empowerment and participation, meaning that if one cannot access and use them, that person will be left behind educationally, economically and politically. In the content of this project, we read "not left behind" as the ability to access higher education by all those desirous of it. One category whose need for higher education is often not given the seriousness it serves is people living with disabilities.

ICTs are today necessary tools in higher education in Nigeria in two important senses. First, to get admitted into any tertiary institution, one has to sit and pass the Unified Matriculation Examination (UME) administered by the Joint Admissions and Matriculation Board (JAMB) as well as pass the post-UME examinations of the selected institution. Both examinations are computer-based, meaning that one has to be proficient in the use of the computer in order to sit and pass these examinations.

The second sense is that ICTs are also tools for learning in the higher education sector. Students are required to write and submit assignments online. They are also required to register for all courses online. In addition, many course materials are online, aside from the fact that students need to use the internet extensively for both communication and research purposes.

This development has meant that those lacking access to ICTs skills would be left out of the education system. Given that access to education is a right, it is important to understand how different categories of people are able to access ICTs, learn to use them and be in a position to engage the education system to gain admission and study in higher institutions of learning.

One class of people that is often overlooked in terms of making provisions for them to access and use ICTs and in terms of how they actually use them for academic purposes are people living with disabilities. There are over 20 million people living with different types of disabilities in Nigeria. Digital migration of education services is threatening to leave them behind. This is because proficiency in the use of the internet is critical to accessing educational opportunities. In particular, since the implementation of computer-based examinations, which is pre-requite for admission to higher education, many people living with disabilities, especially those with hearing and vision impairments, are facing challenges, as there are limited spaces for them to learn and use the computer and internet. Even when they gain admission, many of the institutions of higher learning do not have disability-ICT-compliant facilities.

Aside from the fact that they face the challenge of being left behind educationally, this also means that they would automatically be excluded from enjoying digital rights. Promoting the digital and education rights of people living with disabilities will require understanding and responding to the peculiar challenges they face in terms of accessing, learning and using ICTs in the education system. For this reason, we thought it important to undertake a pilot study of how people living with disabilities engage with the admission processes of higher education in the country as well as how they study in the institutions. This allowed us to understand some of the challenges they face and, therefore, provide an opportunity to discuss with various associations of people living with disabilities and developed strategies and recommendations contained in this policy brief on how they could be addressed.

THE CHALLENGES

When we set out, our interest was to interrogate the key challenges that people living with disabilities face when desiring to access higher education. First, how do they acquire digital skills that are necessary for them to sit and pass the UME as well as post UME of their institutions of choice? Without these skills, they cannot sit and pass the examinations and their ambitions for higher education would remain stillborn. Given that we have very few special schools for children with disabilities and that conventional schools, which are struggling to get even basic ICT facilities, do not have the facilities needed for students with special needs, it is clear that children with disabilities are left behind in acquiring digital skills and, therefore, left behind in their aspirations to acquire higher education.

Second, we wanted to understand what possible guidelines the institutions of higher learning have in terms of assisting or making provision for candidates with disabilities to be admitted into their programmes. This could include what policies, practices, provisions and affirmative actions these institutions have in place for candidates with disabilities to be accommodated and mainstreamed in the academic processes of these, including what facilities and programmes they have for people living with disabilities to access and use internet for educational purposes.

Third, what facilities and programmes as well as initiatives are there in the institutions to enable students with special needs to both learn and use the digital systems for their academic work, such as accessing e-books, listening to lectures, getting their examinations papers in appropriate formats?

Finally, what policies are in place to ensure that students with special needs understand what facilities and provisions the institutions have made for them, how they could access and use these and how lecturers and administrative and other support staff are to be guided in engaging with students with special needs in classrooms, lecture halls, examination halls and generally as they engage in academic activities, such as submitting assignments?

THE SITUATION

The research on which this policy brief is based was a pilot indicative one, which was limited to only a few states in the northwest, namely Kano, Kaduna, Katsina and Jigawa. The research was further limited to public tertiary institutions of three

classes in these states, namely universities, colleges of education and Polytechniques. The reason for limiting to these institutions was that the left out schools (such as schools of agriculture, colleges of nursing, etc.) which are for professional training, have already clear admission requirements which often exclude people living with disabilities. For instance, Schools of Nursing do not admit the blind or deaf candidates. Schools of Agriculture do not admit these categories as well as the physically challenged.

We decided to exclude consideration of private institutions because by their fee regimes, they are mostly outside the affordability limits of most people living with disabilities. This is not to say that there are no such students studying in these institutions. However, such students are most likely to have come from fairly well to do families that can afford to have their own personal means of accessing and using ICTs. Moreover, these private institutions tend to be better endowed in terms of ICTs than public-owned institutions. So, while we would hesitate to make firm generalizations across the country, we consider the findings as indicative of the of the typical challenges that students living with disabilities face in higher institutions of learning and how they cope with these as well as what challenges the institutions face in order to accommodate such students in their academic programmes.

We surveyed 22 institutions out of which only nine had relatively adequate information about students with special needs in their records. The institutions with data are listed in Table 1. Even in these institutions, the data is not comprehensive. For example, we thought to find out the total proportion (in percentage) of students living with disability in relation to the overall total student population. None of the institution gave us this. Instead we had to look for the total student enrollment of this institutions and determine the percentage of the students with disabilities from the figure.

KEY FINDINGS

None of the 22 institutions has policy on disability. Most have an ICT policy. The development of policy has been championed by the Tertiary Education Fund (TEFTund), which has made it part of the requirements for the institutions to assess certain research grants from the agency. However, the policy does not make provision for people living with disabilities and, therefore, assumes the provision will apply equally to all regardless of differentials in disability.

None of the institutions has wide wifi-coverege as to allow students to have access to the internet anywhere on campus, so that access could be easier for students with special needs.

None of the institutions has training facilities and schemes for students with special needs to be trained on digital skills, so that they can have the appropriate competencies to access and use digital learning materials and facilities.

As the schools are mixed in terms of ownership, belonging to different states and federal governments, there are differences in the way they treat disability. For example, in all Kano State-owned institutes, people living with disability are given concession of free education, which means that they do not have to pay for school fees. This serves to encourage such people to apply. In Katsina state, they have

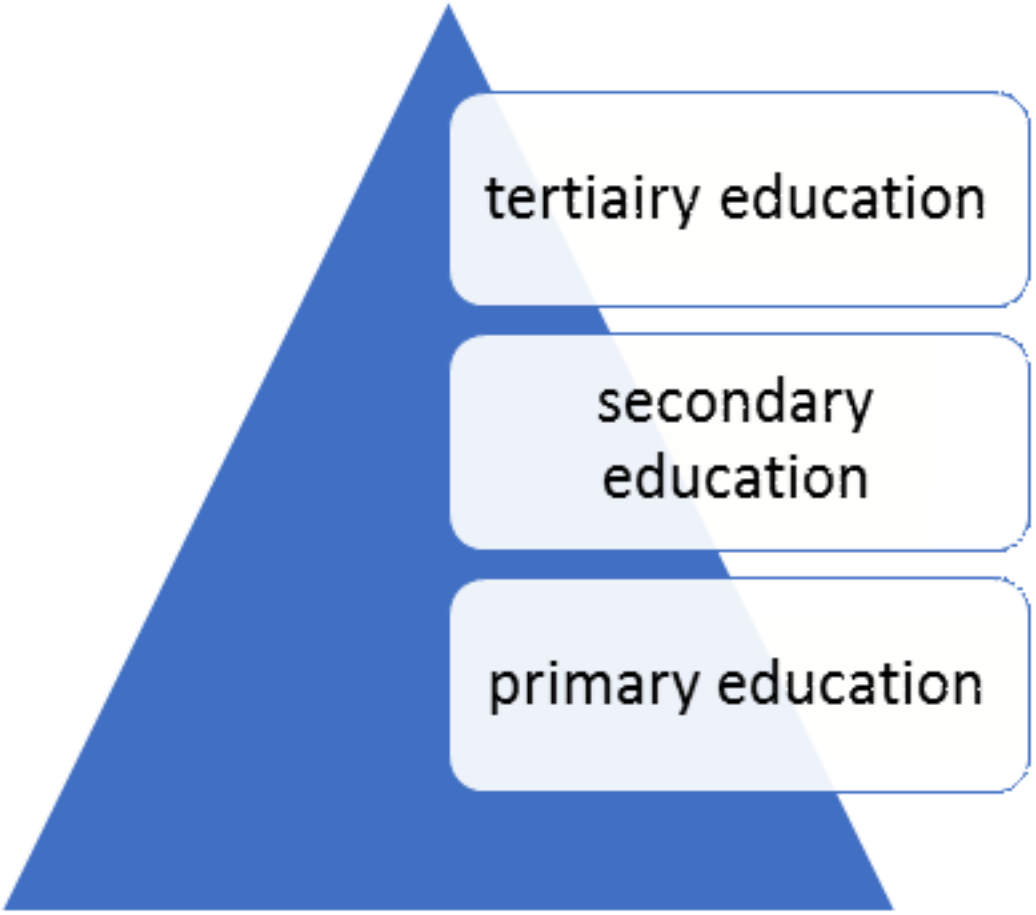
special hostels for students living with disabilities, again serving as an incentive for the students to study in these institutions.

The websites and admission/registration portals of these institutions are not disability-complaint. Blind prospective students and the deaf have to get personal assistants to fill the forms for them.

Institutions are not able to accurately capture data about students living with disabilities. While this is data blindness, it is actually an indication of the attitude of the institutions' administration about how they regard disability. Unless you have accurate data about them, you cannot plan for them.

The possibility of a person with disability to get admission follows a pyramidal limiting opportunity as illustrated in Fig 1.

Fig 1: A limiting Pyramid of Opportunities



Consequently, very few of them are able to get admission. This is why their population is so insignificant in the institutions, as illustrated Tabel 1 with a sample from some of the institutions we surveyed: From the sample, the average proportion of students with special needs across the nine institutions is just about 0.59%, much less than even 1% as against expected of about 10% given the prevalence of disability in the national population of about 10%.

Table 1: Proportion of Students with special needs in some of the institutions

S/N	Institution	No of Students with Special Needs	Total student population	PWD as % of total student population
1.	BUK	56	29,777	0.19
2.	ABU	X	35,000	X
3.	KUST	21	16924	0.12
4.	FEDERAL COLLEGE OF EDUCATION KATSINA	30	14,000	0.21
5.	FU Dutse Ma	9	25,000	0.04
6.	SRCOE	24	35521	0.067
7.	FCE (T) Bichi	-	-	-
8.	COE Gumel	63	8900	0.708
9.	Kano Poly	12	X	X
10.	Isa Kaita COE	33	8,000	0.41
11.	SLU	99	3300	3.00
12.	**Average**			0.59

Opportunities to proceed to secondary education is limited by lack of either special schools for children with disabilities or trained teachers for students with disabilities. By the time they finish secondary school, their chances are further limited now largely by lack of ICT. First, they might not have the opportunity to learn digital skills in secondary schools, a skill that is needed for them to sit for the UME examination. Secondly, even if they have the skills, distance from special UME centres meant for candidates with disabilities to sit for the UME is an inhibit factor. Thirdly, when they gain admission, the lack of access to appropriate interface devices for using the internet, which is critical for learning and academic work, further helps to squeeze out some of them.

We found that, although institutions do not make provisions for students with vision and hearing impairments to access and use the internet for academic purposes, they are required to submit assignments online. This puts them at a special disadvantage, as they have to make their personal arrangement to meet

this requirement, adding a cost burden to their studies.

Institutions do not provide examination question papers for students with vision impairment in the appropriate format and questions have to be read for them, often at the mercy of the person doing the reading. If the person misreads a question or deliberately recasts a question, they have no way of knowing and may end up answering the wrong question.

Only one out of the 22 institutions has a functioning special library for students with special needs. Two others have them but were yet to be operational as at the time of the research. This means that the bulk of students with special needs have to rely on conventional libraries like other students. Yet, there is hardly appropriate assistance for them in the libraries.

Only very few (about 25%) of the students with special needs said they were able to access e-books in libraries. They majority were not able access and use them because there was no assistance for them to do. Additionally, a number of them could not access them either because they were not aware about these resources or because they did not have the relevant skills to use them.

Even though, there are many open source software for people with hearing and vision problems, institutions have not taken these opportunities to equip their ICT facilities for the students to learn and use digital systems for academic purposes.

KEY CHALLENGES

1. Institutions are struggling with the shortage of relevant personnel, such as sign language readers and interpreters, and cannot afford to have a set for each faculty or department. Hence, they have them as a pool in the Departments of Special Education
2. Institutions have structures, including libraries, laboratories and lecture halls, that have been built without consideration for the needs of students with disabilities
3. The lack of a policy on disabilities and, or policy on ICTs for Disabilities means that many lecturers do not know how to integrate students will special needs in their classes.
4. Institutions are lacking staff who have been specially trained to lecture and guide students with special needs.

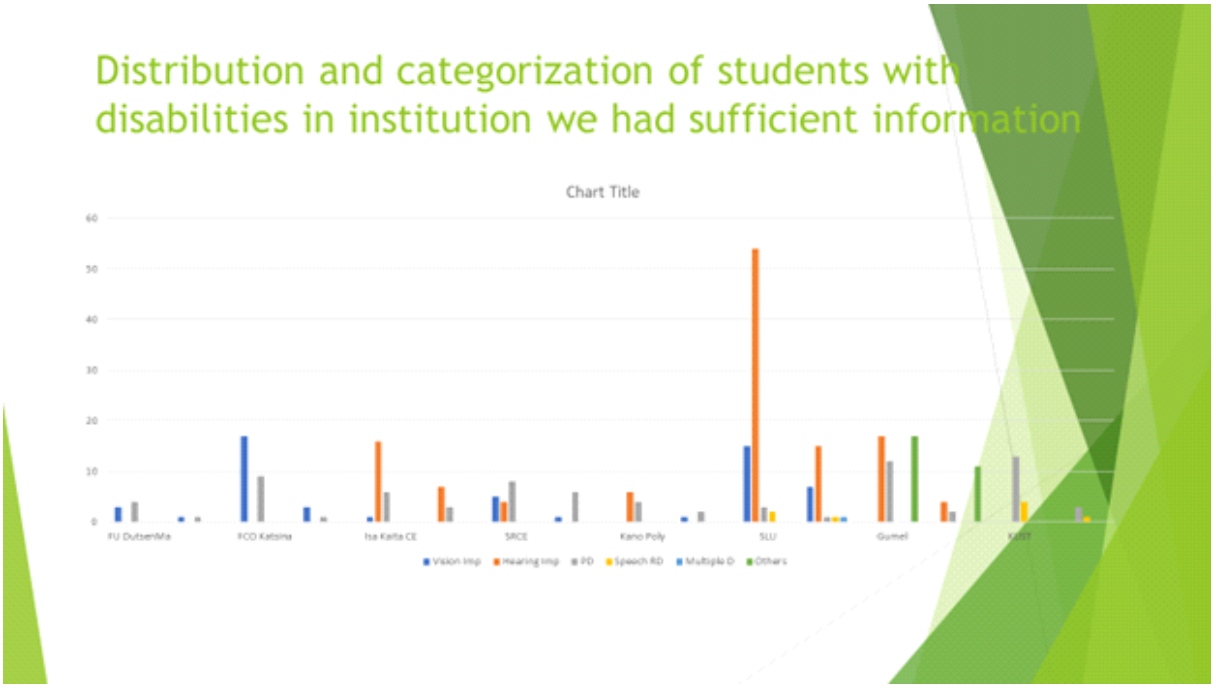
PROMOTING DIGITAL INCLUSION OF DISABILITY

From our survey, the most common categories of students with special needs in the institutions include:

1. Students with vision impairment
2. Student with hearing impairment
3. Students with speech difficulties
4. Students who are physically challenged
5. Students with multiple disabilities

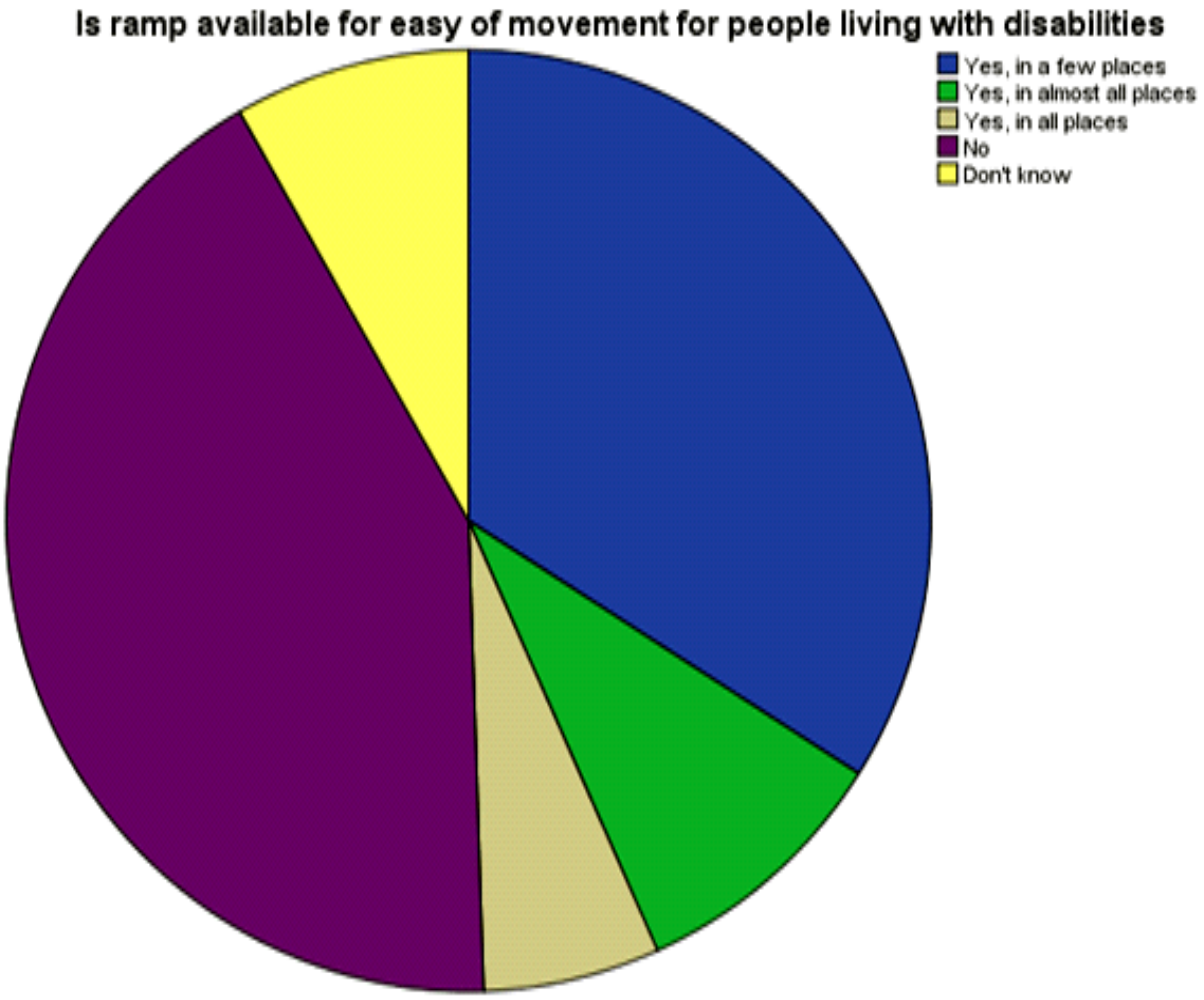
Figure 2 shows the distributions of the students from the institutions we were able to obtain data:

Fig 3: Distribution of catergories of Students with Special Needs according specificity of disability in the institution surveryed



While digital inclusion for physically challenged students is assured through making adequate provision for the ease of mobility to access digital resources, such as providing ramps to libraries and computer centres, for the other categories of students with special needs, it requires much more than that. with respect to ease of mobility, our survey indicates that there are no adequate ramps and railers in the institutions. The result is shown in Fig 3:

Fig 3: Availability of Ramps in the campuses of the institutions surveyed



As can been seen from the responses above, ramp coverage in the institutions is inadequate. Many of the buildings housing computer resources, laboratories, lecture rooms and libraries rooms are upstairs. They were designed and constructed without any idea about the mobility need of physically challenged students. These therefore constrained the movement of physically challenged students, making accessibility to digital resources difficult. Digital inclusion for them would have address this issue,

With respect to vision impaired students, these are the major challenges they face:

1. Like the physically challenged, they have the problem of mobility and therefore of physical access to digital resources.
2. No training facilities and programmes for such students in the computer centres of the institutions.
3. There is no sufficient number of sign language interpreters to go round the classrooms (except probably in Departments of Special Education)
4. Digital resources, such as e-books, e-journals, etc have no appropriate voice interface for students with vision impairment to

use them.

5. There are no training facilities or programmes for this category of students to learn to use digital systems in the institutions

For this category of students, digital inclusion demands that these issues are addressed.

With respect to hearing impairment, the challenges to digital inclusion include:

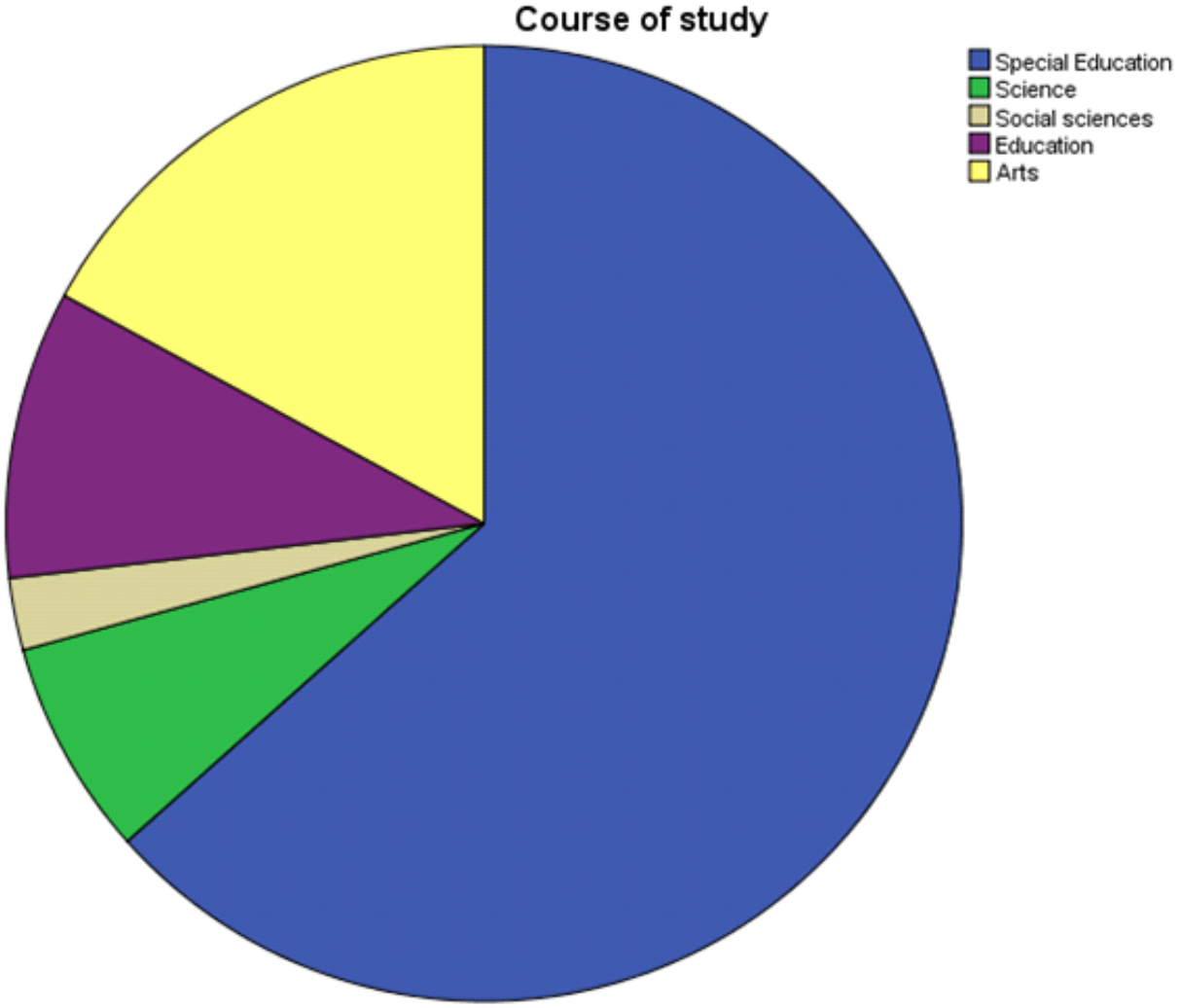
1. When projectors are used in lecture rooms, students with vision impairment cannot see what is being projected on the screen.
2. There is no braille equipment (except in Departments of Special Education). Consequently, examination and assignment questions have to be read for them and even when there is braille support (mostly on a personal basis), most staff, except in Special Education, do not know how to read braille.
3. Lack of policy and poor appreciation of the needs of these students have seen a number of lecturers preventing or stopping vision impaired students from recording lectures, which they need as they cannot write lectures when are no supported systems for braille recording (expect on personal basis)
4. Digital resources do not have appropriate interface for this category of students and, therefore, even if they have physical access, they do not have access in terms of using the systems
5. There are no training facilities or programmes for this category of students.
6. As admission and registration portals are not disability-friendly. Such students have to be assisted to register and in some cases the people assisting them with the registration make mistakes on their courses of study and this cannot easily be found out. In fact, one female student who suffered such fate was in the validation workshop.

Like the other set of students, digital include would mean addressing these challenges.

Another problem that applicants with disabilities face in getting to institutions of higher learning is the selection of course of study. Although this is not directly related to ICTs, we found that there is an ingrained systemic discrimination against such applicants such that they are often "advised" or more appropriately compelled into studying Special Education rather than their own courses of interest.

Fig 4 shows the distribution of students with special needs according to their courses:

Fig 4: Distribution of Students with special needs across broad disciplines in the institutions surveyed



We found no student studying engineering or medicine. We were told that students with disabilities cannot study these courses. One case that resonated and raised a lot of interest during the validation of our research findings was the case of Faculty of Communications, Bayero University, Kano. The faculty has a tradition of not admitting any student with disability. Participants argued that there was nothing that could prevent the study of such courses and pointed to the fact that there were similar departments in some other universities where such students were allowed to study Mass Communication. To drive the point home, they cited several successful journalists practicing with disabilities, including most tellingly, one of the best presenters on the training radio station of the Faculty. This insidious discrimination has seen some students dropped out due to lack of interest in the courses they were forced into registering for. For example, one student in BUK, who had one of the highest scores at the UME and applied to read Medicine, was denied the course on the advice of the University Medical Board, which said that as a physically challenged person, he could not perform some of the procedures required during the training. He was advised to accept to read Computer Science,

with a scholarship compensation by the university. However, after the first semester, he dropped out of the university, thus ending his ambition for higher education.

RECOMMENDATIONS

Governments

1. Review the National Disability Policy to include provisions to address the challenges of people with special needs in accessing and using digital systems in the country.
2. Encourage all institutions of higher learning to develop and implement a Disability Policy that addresses the digital needs of students with special needs.
3. Articulate and implement a National Digital Inclusion Agenda that addresses, among other thing, the digital marginalization of people living with disabilities
4. Direct relevant ICT-related authorities, such as NITDA, USPF, etc to support initiatives aimed at addressing the barriers of people living with disabilities form accessing and using ICTs.
5. Support the production of devices and software for people with disabilities to access and use digital systems for educational purposes.
6. Encourage the Joint Matriculation Examinations Board (JAMB) to establish more special centres for people with disabilities to sit for the UME.
7. Enforce the implementation of the provision of the National Curriculum of Education, which makes computer studies compulsory at the secondary school level and make sure that children with disabilities are catered for.
8. State governments to ensure that all schools for children with special needs and those in conventional schools have access to ICT training facilities.

Institutions of Learning

1. Develop and implement a Disability Policy much in the same line that a gender policy was promoted to protect students living with disabilities from discrimination and abuse and ensure that they are properly incorporated into academic processes by making available all the necessary disability assistance in teaching and study aids.
2. Review their ICT policies to incorporate the needs of students (and staff) living with disabilities, such that they can have access to and use ICTs as tools for academic work.
3. All admission and registration portals/websites of institutions of higher learning should be disability-friendly and complaint by providing for contents to be accessible for students with vision and hearing impairment.
4. Institutions should not derail the ambition of people living with disabilities by denying them the courses they are interesting (a discrimination). Rather, they should seek for innovative ways that should cater for the needs of different disabilities.
5. Academic staff of institutions should be made to understand the needs

of students with special need and be trained on how to handle them in classrooms.

6. Provision should be made for all the necessary interface for students of higher learning to engage with digital systems in their education work in the institutions.
7. Institutions should make provision for language interpreters as well braille equipment and make these widely available across departments and courses.
8. Improve the design of structures, lecture halls and laboratories to make them accessible for students with special needs.
9. Establish special libraries for the use of students with special needs and ensure that such students access and use all e-books and other digital learning materials.
10. All institution ICT centres should create space for the training of students with special needs on digital skills and as well let them access and use the internet for academic work.
11. Given that people living with disabilities constitute about 10% of the national population, all institutions should endevour provide about 10% of their admission spaces to people living with disabilities.
12. Institutions should accurately capture data about disability at the point of registration and use such data for planning and provisioning purposes.
13. There should be uniform practice with respect to how people living with disabilities are admitted into institutions of higher learning in the country. This should relate to the sitting of both UME and post-UME examinations. Where institutions are not able to provide facilities for the candidates with disabilities to sit for these examinations, they should waive them or device alternative tests.
14. There is need to sensitize both staff and students in higher institutions to understand the special needs of students with disabilities and, therefore, make staff and lecturers more sensitized to think of how they could mainstream them into their teaching.

Others

1. ICT and telecommunication companies should devote a substantial part of their corporate social responsibilities and commitment to support the digital inclusion of people living with disabilities educationally in schools.
2. CSOs should mount a sustained advocacy for a national digital inclusion agenda that will mainstream people living with disabilities in the national digital space.
3. CSOs should monitor the extent to which institutions of higher learning implement digital inclusion programmes.
4. CSOs should support digital skills provision for people living with disabilities at all levels and
5. Philanthropists should establish centres for the training of people living with disabilities on digital skills.

ABOUT CITAD

CITAD (www.citad.org) is a capacity building civil society organization whose activities cover research, advocacy, training and publicity in all the areas of ICTs. Its vision is; a knowledge-based democratic society free of hunger, while its mission is; using ICTs to empower citizens for a just and knowledge-based society that is anchored on sustainable and balanced development.

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