



Draft Report

State of ICT Report 2017

**The Internet: Private commodity or public good?
Perceptions from the KICTANet 2017 ICT survey**

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Abbreviations and acronyms

ICT	Information and Communications Technology
IFMIS	Integrated Financial Management Information System
ISP	Internet Service Provider
KICTANET	Kenya ICT Action Network
NOFBI	National Optic Fibre Backbone
PPP	Public-private partnership
PWD	Person with Disability
R&D	Research and Development
SLA	Service-Level Agreement
TVET	Technical and Vocational Education and Training
USF	Universal Service Fund

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1. Executive summary

The Internet sector has a long history in Kenya, with its access having been launched in October 1995 on a leased telephone line paid for by a now-defunct non-profit organization (Mureithi, 2017). There have been significant changes since then.

Recent sector statistics from the Communications Authority of Kenya indicated that there were 31 million Internet subscriptions across the country (Communications Authority of Kenya, n.d.) in the July - September 2017 quarter. The data was based on information provided by service providers. Additionally, there is a robust ICT community of stakeholders engaging in niche areas that include: regulation and governance; infrastructure provision and access; software and content development; and research.

KICTANet conducted a survey of various stakeholders to assess their perceptions of the performance of the ICT sector in 2017. The survey focused on the following key areas: policy and legal issues, access, infrastructure, and human capital/workforce. These key areas were developed from the ICT wishlist initiative where stakeholders had listed areas priority areas which they felt the government and other stakeholders should work on.

The data showed a perception that the Internet is a service that should not be restricted to elite urban users. It should also be accessed by poorer and rural communities. Therefore the dominance of particular players such as telecommunications companies emerged as a concern among respondents who leaned towards viewing the Internet as a public good rather than a commodity for purchase.

As one participant said:

Provide Internet as a necessity and as a human right. You can't expect wananchi to file returns in the villages when they lack basic internet infrastructure.

Respondents viewed the government as a key player in the technology sector that needs to make more effort in an array of areas. These include ensuring access to all, providing infrastructure at national and county levels, and engaging the citizenry in ICT policy making and implementation. Yet government is also partly perceived as dishonest in its policy making and activities which points to a lack of trust among the public.

The data also showed a perception among respondents that the Internet remains an elitist, jargon-laden commodity, yet is essentially a public good that needs to be demystified. This latter perception of a public good is borne out by the fact that since 1995, Internet access has largely been granted through private, for-profit companies, namely Internet Service Providers and telecommunications companies.

The report recommends the following: greater inclusion of different stakeholders in different aspects of the ICT sector such as policy making, planning and legislation; more effort by government to be transparent and accountable in its ICT policies and practices; increased engagement by academia in both theoretical and industry-focused research; discouragement of monopolies; and continued encouragement of public-private partnerships.

More specific results of the survey are presented in the rest of the report.

2. Overview on the state of ICT in Kenya

The 52 survey respondents came from academia, business, civil society, and government, with smaller representation from the technical and legal communities, as well as international organizations. The majority of respondents were male, while a third were female. An estimated 5% chose not to indicate their gender. The stakeholder and gender responses are presented in Figures 1 and 2 respectively.

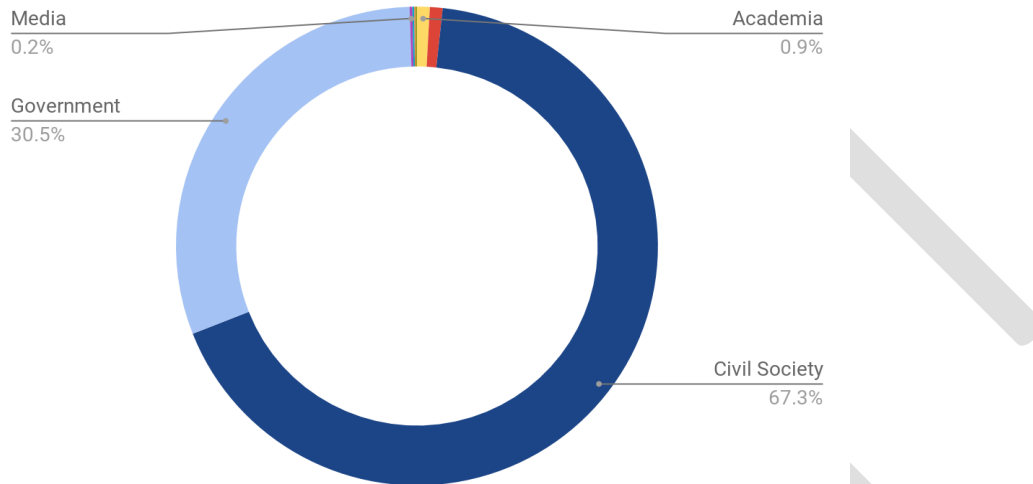


Figure 1: Respondents by stakeholder group

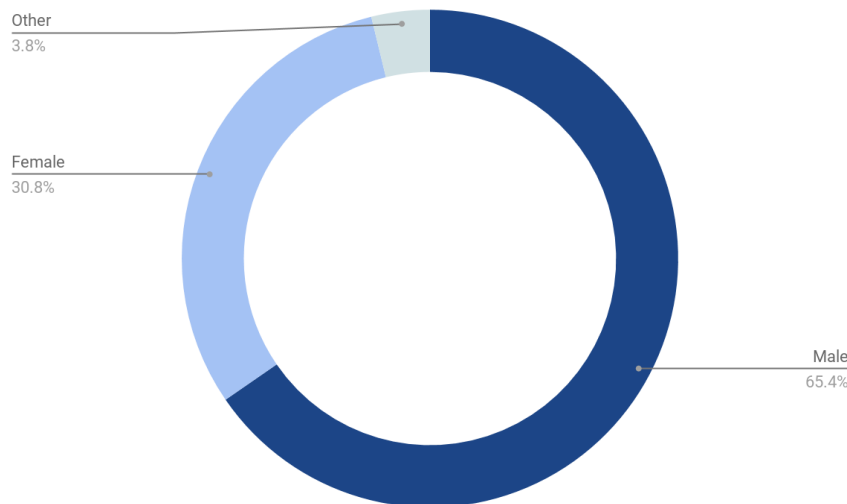


Figure 2: Respondents by gender

The survey focused on the following key areas: policy and legal issues, access, infrastructure, and human capital/workforce. Out of 23 questions, 19 yielded quantitative data while 4 yielded qualitative data. The quantitative data was analyzed and presented through charts and graphs. The qualitative data underwent a thematic analysis with select quotes used for illustration.

3. Policy and Legal issues

i) To what extent have ICTs been opened up for public participation in as far as policy development, concepts, and selection of projects are concerned? The options for response were: 1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent.

Of the respondents, 46.1% of them expressed that to a moderate extent, ICTs have been opened up with regards to ICT law, policy development processes, concepts and selection of projects. The data also reflects similar responses for 2016 review where 41% of the stakeholders indicated that engagement between the government and other stakeholders was moderately achieved. This is seen in Figure 3.

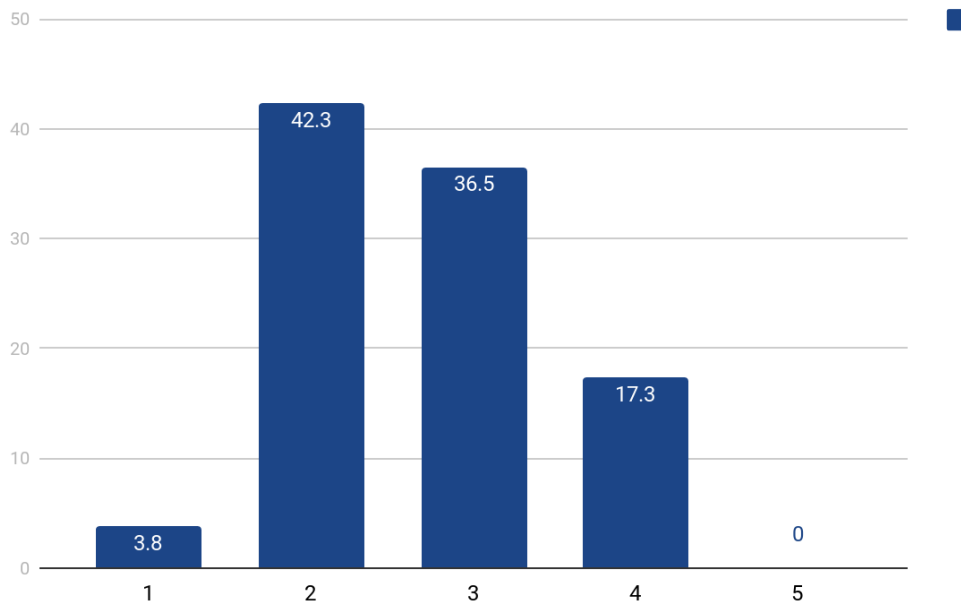


Figure 3: Respondents' views on the opening up of public participation in the sector

Public participation is the involvement of the public through stakeholder representation on decision making about public policies, government plans, programs and governance processes. It gives citizens an opportunity to interact with leaders and government agencies, understand policy issues and give feedback. Article 10 of the constitution requires that policy makers provide for public participation in the development of every policies. This has been effected, not only in policy development processes, but also in governance and in the different levels of policy making. For instance, the ministry of ICT called for public participation for the Computers and Cybercrime bill at drafting stage. The same bill went again through public participation at the national assembly. Government agencies have also called for public participation on other governance issues such as market dominance.

Nevertheless public participation policy stumbles upon a number of challenges. Stakeholders have often complained of communication issues such as: poor feedback, lack of timely provision of documents to inform participation¹, insufficient time for stakeholders to respond and

¹ Public notice on Telecommunications Market Competition Study report: <https://www.kictanet.or.ke/?p=36823>

communication/language gaps between a section of stakeholders and policy makers.

ii) How has the sector performed in providing policies that create opportunities for women, youth, People with Disabilities (PWD) and marginalised persons perspectives, as well as have their input during implementation?

Respondents selected from 5 options, ranging from very poorly (1) to excellent (5) as shown in Figure 4.

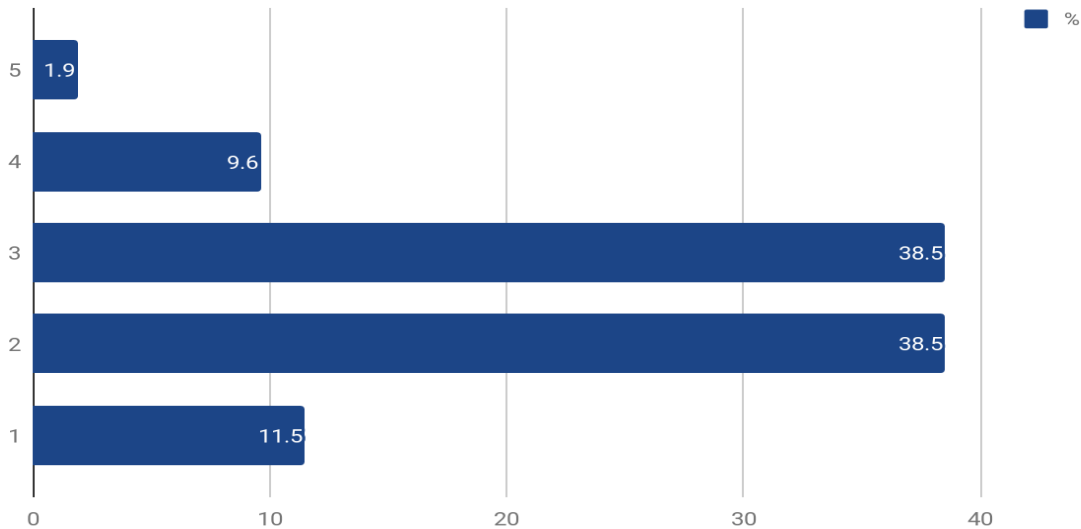


Figure 4: ICT sector performance in providing opportunities to special interest groups

The data showed that the majority of respondents (77%) perceived the sector to have performed poorly or moderately in providing opportunities to the various special interest groups. Only an estimated 2% considered the sector to have performed excellently in this regard.

Are you aware of any policies that promote ICT integration in the counties?

The options for response were 'yes,' 'no,' and 'maybe.' Of the respondents, 36.5% indicated they had an awareness of policies that promote ICT integration at county level, while 53.8% did not. Nearly 10% of the respondents indicated their uncertainty by selecting the 'maybe' option as shown in Figure 5.

Points scored

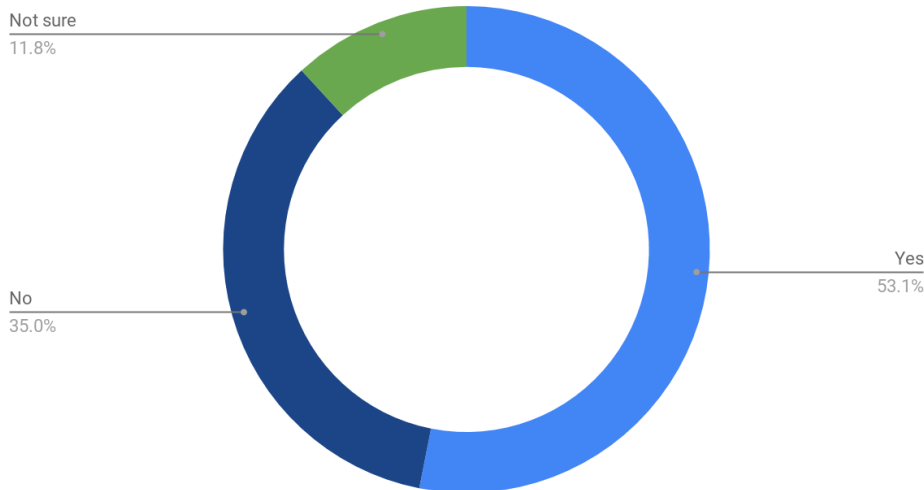


Figure 5: Awareness of policies that promote ICT integration at county level

What do you think should be done promote greater public participation in ICT policy and law making? The respondents were invited to provide their individual responses.

Participants presented their views on how the public can be encouraged to participate more in ICT policy and law making. These views emerged under the following themes: creating awareness, structuring the public participation process, using different platforms, greater proactive effort from government to engage citizenry, training and research, and engaging different stakeholders.

Awareness creation - various participants indicated the need for awareness among the citizenry about ICT policy and lawmaking. A sample of respondents' responses indicates this:

Awareness should be upheld on how different stakeholders can participate and benefit from the participation

Increase awareness of new policy or law being made

Having a structured public participation process – Different respondents indicated ways in which the public could be involved in the process of ICT policy and law making on different platforms and through the efforts of government at national and county levels, as well as of other institutions. A sample of the responses around this question is shown below.

Carry out more public forums especially in higher education institutions since young people understand ICT issues more.

Organise public meetings and also share online for comments

Hold multiple sessions throughout the year (funding allowing) with particular interest groups to entrench their understanding of and investment in policy

Target platforms frequented by the public such as social media and radio by creating

and facilitating specific public target audience

More honest engagement from policy makers

Better timing (it is critical to have good time for stakeholders to review policy documents before participation forums)

Accept various ways to provide feedback including electronic means

Use of different media – respondents proposed that to involve the public, the use of different platforms to engage and invite comment would be useful. The use of traditional media platforms – such as TV and radio – was also suggested as a means to reach the public. A sample of comments is indicated below.

Allow the public contribution via mobile service provider using SMS

Consider live streaming the forums

Also allow for people to give views on as many platforms as possible

Create catchy media content for advertising on radio/TV for meet-ups and barazas

Most media stations should be involved to air out the forums regarding the same.

Use of social media

Proactive government involvement of citizenry – the respondents indicated the need for greater efforts from government to engage the public in the process of policy making. Participants called for more public consultations within larger time frames, better and more frequent ways of reporting back to the public after consultation forums. Participants also pointed to the need for government to be more open in its processes. A sample of responses is shown below.

How about a website – a single point where notices of ALL matters for public participation are posted, not only ICT

Initiatives to the general public to call for their participation in policy and law making.

Carry out public campaigns on popular platforms and have realistic deadlines for submission of comments on the same.

Government to publish public laws being made and provide online discussion forums where everyone can contribute and see others' contributions

Enhanced transparency and disclosure

Training and research – various participants saw a need train citizens in the process of policy making and the need for data-driven policy making. A sample of comments is indicated below.

Introducing ICT minor courses even in junior schools and also polytechnics

Involving academic institutions, ICT service providers and users of Technology in coming up with ICT policy and Law through research

Engage different stakeholders – The value of having different interests represented in the policy making process was raised by participants who also called for a demystification of the technical language used in the ICT sector. Below is a sample of the comments.

Engagement of citizenry, users not only technical communities

Involve the creative sector especially the film industry

Provide more access data from the county

Strengthen multi-stakeholder platforms such as KICTANET

Youth involvement

What is the key ICT policy or legal issue that should be prioritised in the coming year?



Image 1. Word Cloud on topic representation from the responses on what should be prioritised

Here the responses were analysed according to the issues mentioned. 80% of the issues expressed were on ICT security and its components. (these included; data protection, privacy, cybersecurity, cyber stalking and cyberbullying) 20% of the priority issues were on data protection, 5.5% on privacy, 9.1% on cybersecurity, and 7.2% on access.

Data protection Survey participants expressed the need for a data protection framework. They were also specific on the prioritization of personal data protection by the stakeholders.

Access Respondents called for the prioritization of ICT access especially in the counties. Some responses advocated for the widened use of ICT in other cross cutting sectors, for sustainable

development.

Regulation The respondents also expressed that the ICT practitioners bill should be dropped. In addition, respondents also asked the sector to review the regulations and define how far they regulations should go in relation to freedom of expression and innovation.

4. Infrastructure and Access

i) To what extent do you feel the the cost of Internet has been more affordable in 2017? (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent)

Just over a third (36.5%) of the respondents indicated that the cost of Internet was more affordable in 2017 to a moderate extent. 13.5% strongly felt Internet affordability had increased, while 9.6% strongly opposed the view that the internet was more affordable. The views are shown in Figure 6.

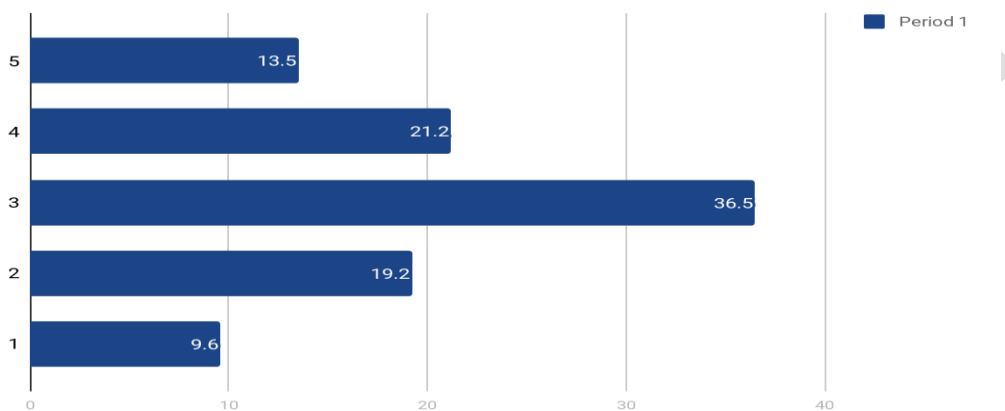


Figure 6: Respondents' view of internet affordability

The telecommunications industry has been very competitive and internet costs have continued to go down over the years as service providers compete to attract customers. Broadband costs have come down such that the lowest costs range from KES 1000 per month and daily mobile internet at 7mbs for 5 shillings. However distribution of infrastructure even within the urban areas is uneven. Provision has been left to market forces. Even within the urban areas, the private sector has left out patches where there's no business sense to invest their infrastructure.

ii) To what extent do you feel that persons with disabilities have better access to ICT services? (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent)

The majority of the respondents (710%) of the respondents felt the sector had performed poorly in incorporating the needs of people with disability in the provision of ICT based services., as shown in Figure 7.

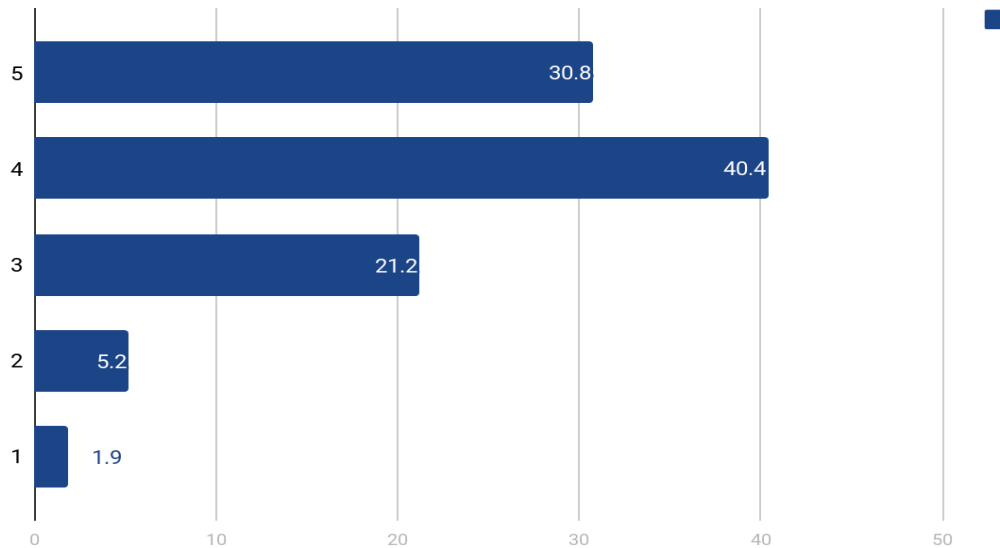


Figure 7: Respondents' views of how PWD have fared in the ICT sector

Traditional media houses have added PWD access to prime news content, while the government has also improved ease of political participation in processes such as elections and parliamentary and court proceedings. Especially where the issues involved have a lot of public interest. However, the government and service providers have not reflected the same with regards to accessibility on web based services. The e citizen and I tax are websites that provide critical services to Kenyans, yet they don't have accessibility features for citizens with disability. Similarly, the private sector have not come up with alternatives to incorporate this part of their population to enjoy their ICT based services.

iii) What do you think should be prioritised this year to improve internet access across the country?

The 50 responses to this question revolved around the following themes: government's role, reduced elitism, removing monopoly, and lowered costs.

Government's role. The respondents offered a range of options concerning the government's role in improving internet access across the country. Responses included: the need to reduce costs of access, enable equitable access (such as to the disabled, schools, hospitals, marginalized areas, etc), collaborate across national and county levels in infrastructure provision, deploy the Universal Service Fund as it was envisioned, and continue to engage in public-private partnerships with the commercial stakeholders,

Below are sample comments concerning the government's role in improving internet access across the country

Government backed ICT infrastructures e.g. fibre to county headquarters and also government-backed implementations in health and academia.

Government subsidies and massive investment in backbone networks

Use of national resources beyond reliance on private sector

ICT hubs should be set up in counties

Have affirmative action for those with disabilities

Fiber and how it's laid. There needs to be some serious thought put into this. Perhaps the counties can lay down their own networks and companies do the last mile.

Revive the moribund Universal Service Fund

Roll out infrastructure across counties

More wifi hotspots across the country

Localize ISPs at county level

Evaluate ICT penetration at county level and prioritise

Reduce elitism – the provision of Internet access was perceived to be concentrated in urban elite areas. Several respondents raised this in their comments as indicated in the sample below:

Lay out fibre to the rest of the country not only in posh neighbourhoods and business areas.

Communication Authority facilitating connectivity in marginalized areas in Kenya

Rural folks mostly use non-smart phones. There's need for cybercafes that can encourage them to access internet more often. Besides, not everything can be done through the phone.

[Establish] community networks

Reduce monopolies – the dominance of particular players in internet provision, such as telecommunications companies was a concern raised by several respondents. Their solutions implied government intervention and/or an increased number of other players in the sector to address the question of monopoly. Two respondent comments below capture those sentiments:

More infrastructure by data companies across the country, especially to compete with Safaricom to democratize the market.

Reduce telco monopolization

Lowered costs – Respondents repeatedly pointed to the need to enable a greater range of users to have equitable access to the Internet, including those who do not have large incomes. There was no specific solution as to how the lowering of costs would be achieved, though the respondents seemed to suggest that the market itself could enable that through having a wider range of service providers. However, government intervention may be another option even though that was not explicitly stated by the respondents.

Sample responses were as follows:

Standardizing and lower price of mobile data

Make the Internet service rates affordable

The cost of internet should be made more affordable to low income earners

iv) To what extent do you feel that there has been increased roll out of 3G and 4G outside Nairobi and in the counties? (1-lowest extent, 2- below average extent, 3- Average/Moderate extent 4- Above Average extent 5:-Very Largest extent).

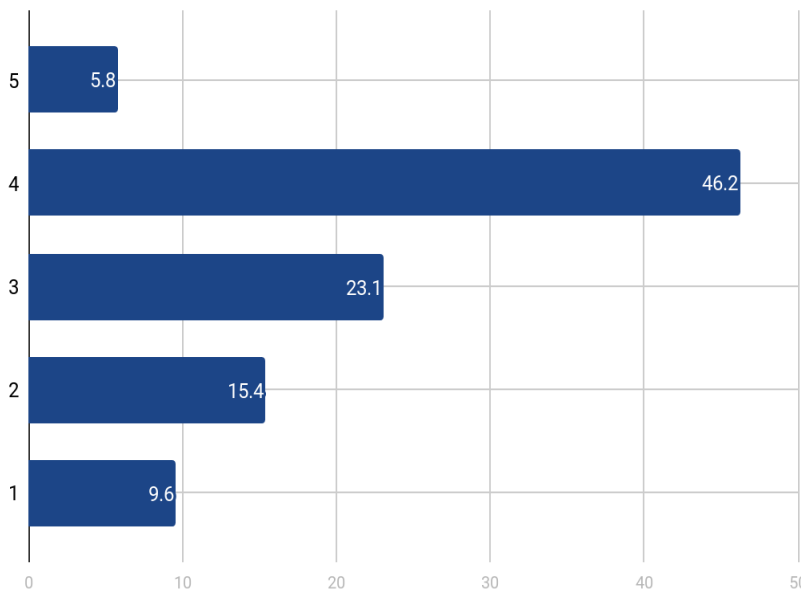


Figure 8: Respondents' views of rollout of 3G and 4G

More than half of the respondents (52%) agreed that there has been increased 3G and 4G networks in the counties, and only 23.1 felt that the network coverage had improved to a moderate extent as shown in Figure 8.

The Kenya Information and Communication Act 2009 provided a base for the establishment of the Universal Access Fund(USF). The purpose of the fund is to promote widespread of ICT access countrywide by financing national projects that have significant impact on the availability and accessibility of ICTs in rural, remote and poor urban areas.

v) To what extent do you feel that the sector has promoted open source as a means of encouraging content creation? (1-lowest extent, 2- below average extent, 3-

Average/Moderate extent 4- Above Average extent 5:-Very Largest extent).

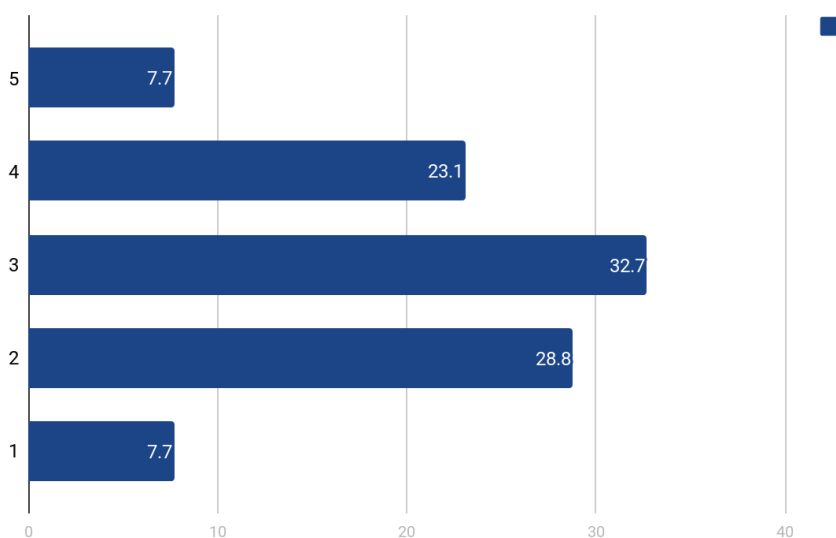


Figure 9: Respondents' views of open source use in local content creation

Of the respondents, 7.7% strongly felt that the sector had done little to promote open source as a means of encouraging local content creation, while 7.7% strongly felt the sector had provided robust support in this area. Just about a third of the respondents (32.7%) felt that to a moderate extent, the sector had done a lot to encourage local content creation through the promotion of open source.

Enablers of local content creation include Internet Infrastructure, affordability of the Internet and ICT equipment, education and skills. These have significantly improved over the last 10 years. The app industry has grown in terms of the number of applications, users and subject categories. The table below shows the categories of local apps and their usage.

Category	Apps and download numbers				
Finance	Tala Kenya 1 Million	Mkopa 5,000	KCB 500,000	Okoa loan 100,000	M-ledger 500,000
Education	Kenya Basic Education Act 100	KCPE & KCSE study app 10,000	St Paul University 500	Kenyan Constitution 100,000	
Games	Bungoma Hangman 50,000	Matatu 10,000	Bet in 10,000	Githeri man 500	Bodaboda Madness 500
News	Tuko news 1 Million	Nation news 10,000	KTN News 100,000	Citizen news 500,000	Viusasa 500,000

Transport	Sendy 50,000	Little cab 100,000	Madaraka Xpress 500,000	Taxify 100,000	
Lifestyle/entertainment	Kenya travel guide 1,000	Mdundo Music 1Million	Waabeh 1,000		
Public Service	NHIF Mobile 100,000	Nairobi City County 500	iTax 50,000	NTSA app 100,000	E citizen ke 50,000

Table 1: Categories of local applications

A positive trend is the ability of Small and Medium Sized Companies (SMEs) applications to compete with Huge companies such in the news and banking categories. However, Kenyan apps still struggle to compete locally with other global brands. Most of them rise out of local events and can only manage to run for the period the events are in the public discourse.

The Access to Information Act 2016 has also promoted the creation of open data and Information by the government. There has also been increased publication and sharing of government information and data among citizens, and thereby increasing political participation. For instance, during the 2017 elections, the IEBC and the Judiciary enhanced transparency by sharing data and proceedings on their respective websites. Government agencies have also increased citizen engagement through the Social Media and have continued to provide more content in these platforms. Though the review also noted that government shared information on the websites are for the short run. Example Government Open Data initiative that became inactive from early 2017.

vi) To what extent do you feel that Government transactions are electronic and auditable? (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above

Average extent 5:-Very Largest extent).

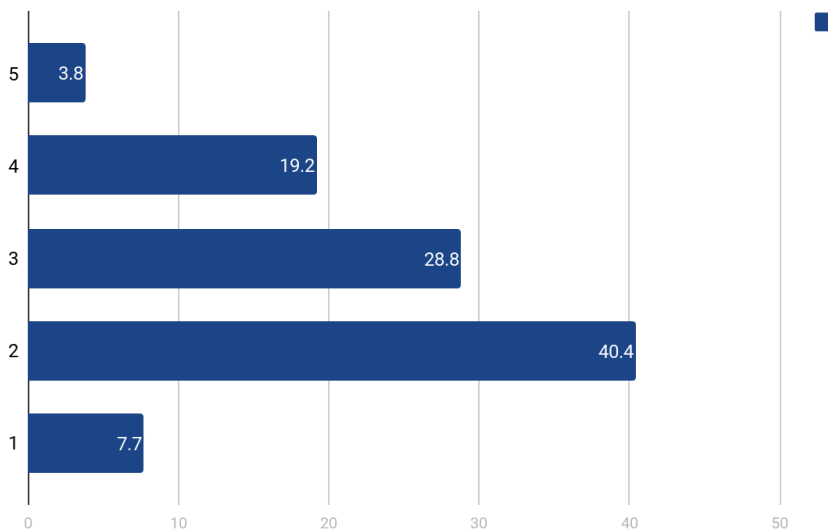


Figure 10: Respondents' perceptions of government transactions online

Just over a fifth of the respondents (23%) indicated that government transactions have been electronic and auditable to a very large extent or above average extent. About 48% viewed these two characteristics of government transactions as below average or very poor, while 28.% viewed the performance as moderate. This is shown in Figure 10.

vii) To what extent do you feel that Electronic health has been standardized to improve inter hospital medicare? (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent).

The majority of respondents indicated that the achievement of e-health in this category was average or below average, as shown in Figure 11.

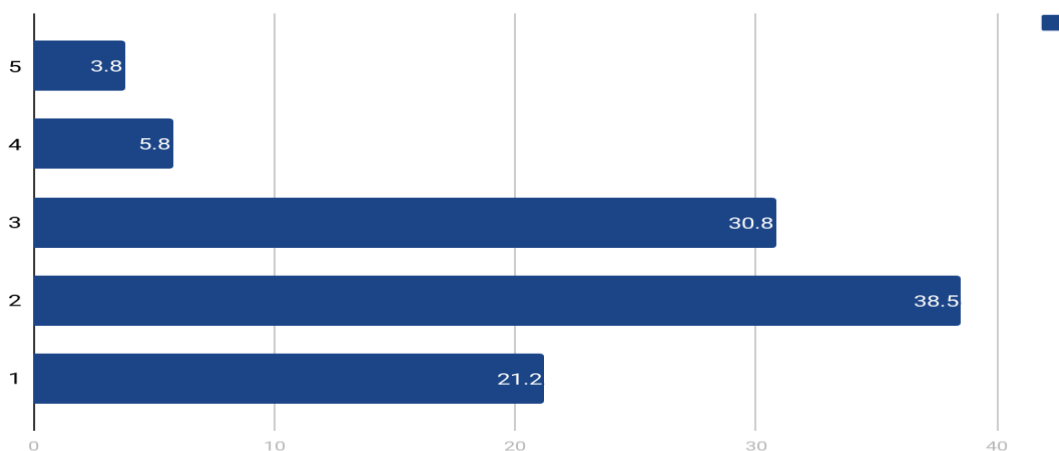


Figure 11: Respondents' view on extent to which e-health has been standardized

viii) To what extent do you agree that the sector should still work on facilitating the provision for Mobile-phone voting facilities in the next General election. (1-strongly disagree, 2- moderately disagree, 3-neither agreed or disagreed 4- moderately agreed 5:- strongly agree).

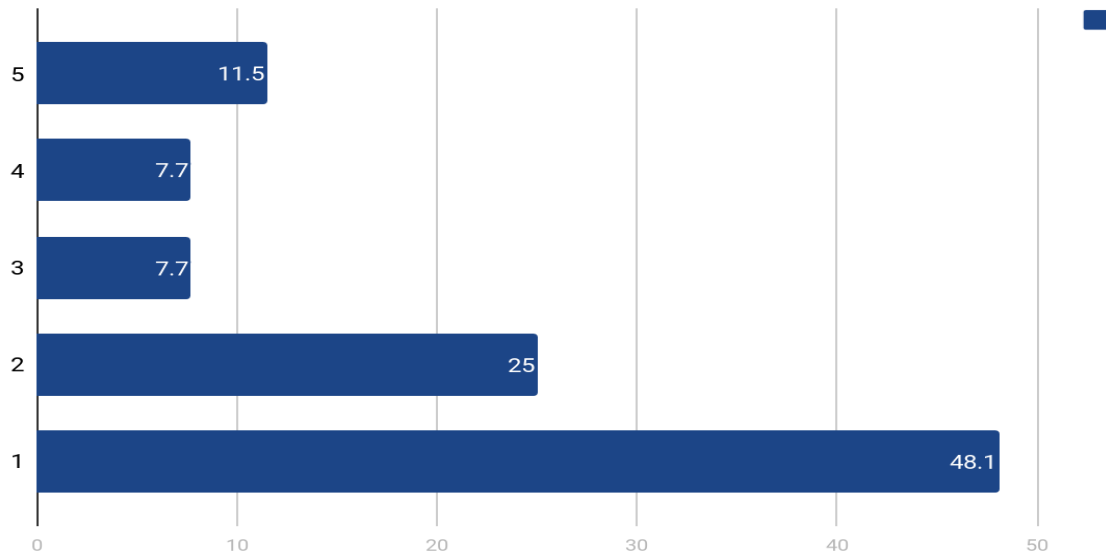


Figure 12: Respondents' view on sector involvement in facilitating mobile phone voting in 2022

The majority of the respondents were of the view that the ICT sector should play a role in facilitating provision of mobile phone voting in the next general election. This is illustrated in Figure 12. Of the respondents, 48.1% strongly agreed that the sector should still work on the facilitation of mobile phone voting for the next elections, 25% moderately agreed, 7.7% neither agreed nor disagreed, 7.7% moderately disagreed, and 11.5% strongly disagreed.

ix) What do you think should be prioritised this year to improve ICT infrastructure in the country?

spectrum of licenses. There also need to be quicker, honest responses from CA on queries of the same.

Government systems that employ technology should be reviewed and audited. There seems to be dishonesty in how they are run eg IFMIS, e-citizen.

Reduce monopoly within service providers and provide incentives to encourage more investment in the sector.

Last mile villages connections, policy implementation in regards to ICT in Academia, Health and Public service.

Better usage of NOFBI (National Optic Fibre Backbone)

Policies to harmonize approvals across on setting up fiber by ISPs.

Provide Internet as a necessity and as a human right. You can't expect wananchi to file returns in the villages when they lack basic internet infrastructure.

Greater collaboration - respondents encouraged private-public partnerships as well as intra-industry partnerships in the development of ICT infrastructure and called for the prioritising of rural areas in infrastructure development. Sample responses are shared below.

Partnerships in rolling out infrastructure, both PPP as well as intra-industry partnership.

Partnerships between government and private sector

Training - respondents raised the need for skilled personnel with niche expertise. One respondent also called for the establishment of an eGovernance Academy. Sample responses are shown below.

Training of ICT personnel in specific skills e.g. medical care and govt information access services

5. Human Capital and Capacity

i) To what extent do you agree Academia (Universities & Research Institutions) have enhanced capacity and linkages to meet the needs of the labour market and industry. (1- lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent)

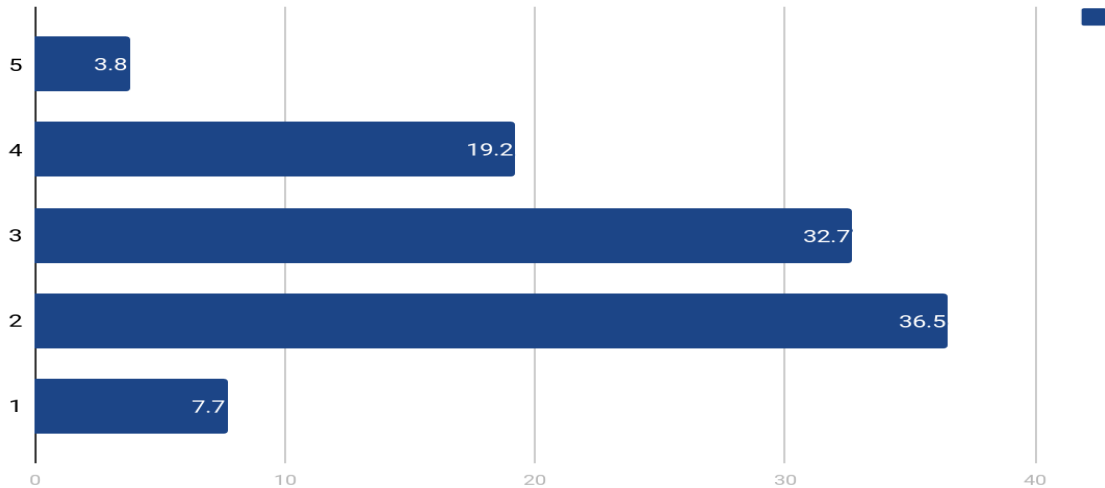


Figure 13: Respondents' view on academia's capacity to meet market needs

Of the respondents, 69% indicated that the extent to which academia had the capacity to meet labour and industry needs was average or below average, as shown in Figure 13.

ii) To what extent have Research and Development in local institutions been strengthened to enable the development of local solutions? - eg Solving the problem of traffic jams. (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent)

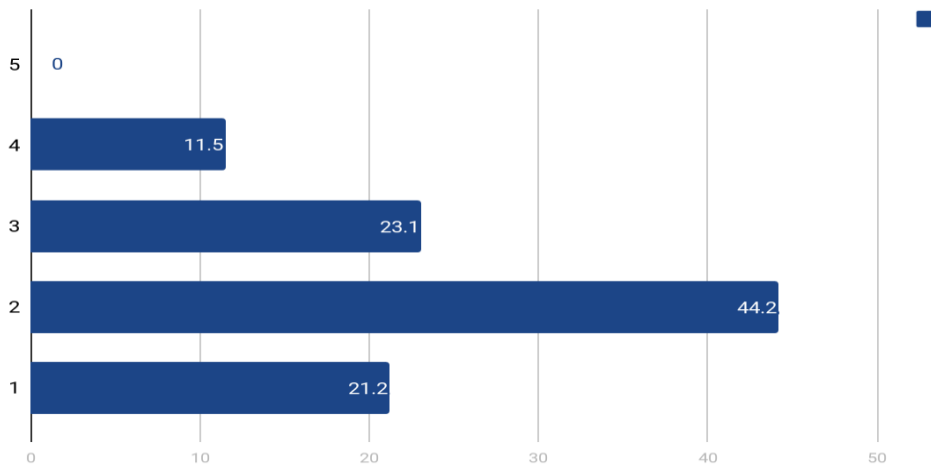


Figure 14: Respondents' view of R&D's involvement in developing local solutions.

The majority of respondents held a bleak view of the strengthening of research and development to introduce local solutions, with 65% indicating lowest extent and below average extent.

iv) To what extent has the sector leveraged on tech development to promote innovation, techpneuership and thus address youth unemployment. (1-lowest extent, 2- below average extent, 3-Average/Moderate extent 4- Above Average extent 5:-Very Largest extent)

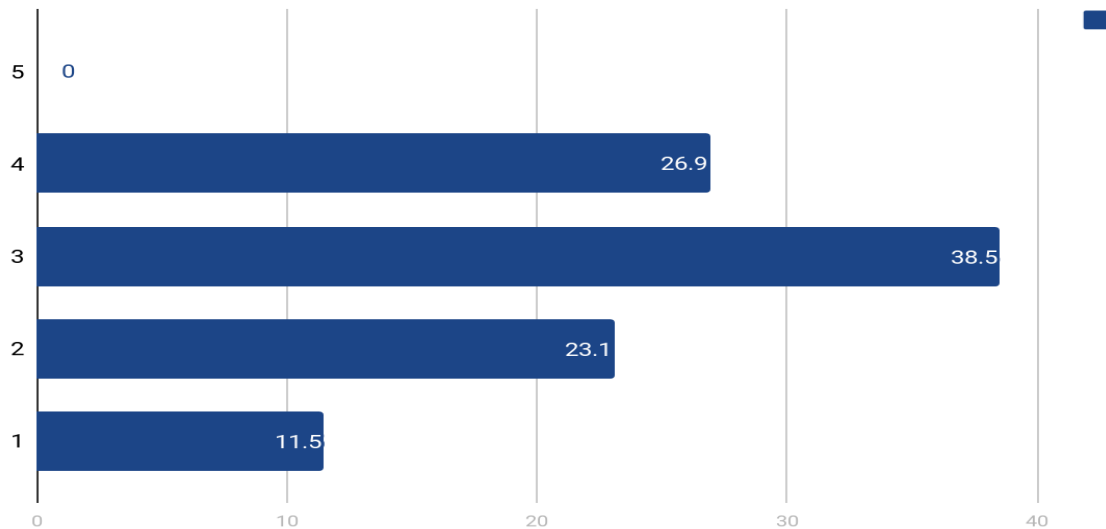


Figure 15: Respondents' view of the performance of the sector in leveraging on tech to address youth unemployment.

None of the respondents expressed strong views on the performance of the sector in leveraging on the ICT to address youth unemployment. Of the responses, 26.9% expressed that, to a least moderate extent the sector has made use of the ICT to address the problem of unemployment, 38.5% to a moderate extent, 23.1% to a below average extent and 11.5 to the least average extent.

v) What's the critical change that can be made to enhance research, innovation and technopreneurship

The 52 responses to this question revolved around the following themes: involving different niche groups, regulation and accountability, funding, a clear focus; training; greater collaboration and investment; and guaranteed internet access

Involve different niche groups - in different projects regardless of technological knowledge. These groups would include the youth, and young women and girls.

Regulation and accountability – respondents advocated for greater care in the regulations to promote rather than deter entrants in the sector. One respondent referred to the premature regulation of innovations and startups as a deterrent while another said there are narrow interests embedded in legislation that should be removed. There was another suggestion of having policies that support entrepreneurship and efforts to work online. Better documentation of government processes such as procurement was proposed alongside data-driven policy making and implementation

Funding - the need to fund research and to dedicate more resources to research and development was promoted with suggestions including the provision of sponsorship and funds to institutions and bootcamp programs, as well as better equipping of innovation centres.

Have areas of focus with some flexibility – respondents noted the need for particular areas of focus. These included the development of tech hubs into production centres, as well as a need for academia to engage in more action research rather than only producing theoretical, grade-focused scholarship.

Additionally, participants called for the development of open source products that can help users. Other areas that would require a clear sense of focus included governance where participants called for greater transparency that would enable the equality of access for innovators and techpreneurs to government contract bidding.

Innovation challenges from a national level. Increased awareness. Academia developing solutions for market and industry.

However one respondent also noted that being too focused could be unfair and limiting. As the respondent expressed it:

This thing of looking at tech and entrepreneurship as the be all and end all of our issue is wrong. Tech is a tool not the solution. We need to fix policy and its implementation.

Training: - participants raised the need for sufficient skilled personnel to be involved in ICT training and for young people to receive training early on, from primary school. But the use; start early like from primary school; use ICT in TVET and invest in online TVET training; teach people about online training and entrepreneurship; invest in innovation hubs across counties; keep reviewing curricula to keep them fresh and relevant.

As one respondent put it:

Making training relevant for the industry not pushing it from a legislative way.

Greater collaboration and involvement – participants noted the multiple opportunities for collaboration between government, industry, and academia at technical and financial levels. These opportunities would need better structures set up to encourage these interactions such

as friendly policies and funding.

Among the types of collaborations suggested included those between incubation centres and international accelerators as well as industry players, exchange programs between academia and practice, and inclusion of a wide variety of stakeholders at policy making levels.

Data driven policy making. Structural private sector linkages with academia for capital unlocking (funding) and early cycle collaborative development.

Internet access – the need for equitable and cheap Internet access was raised by participants, as well as affordable access to wider ICT infrastructures .

6. Conclusions and Recommendations

The data showed a perception that government is a key player in the technology sector that needs to make more effort in engaging the citizenry in ICT policy making and implementation. Government also seemed to often be perceived as opaque and not always honest in its processes, policy making and practice in relation to the ICT sector.

There was a call for greater collaboration between academia, government and industry at technical and financial levels, more data-driven policy making, increased citizen participation in policy making, reduction of private-sector monopolies such as in infrastructure and access provision, greater inclusion of easily excluded groups such as people with disabilities, the youth, and rural communities, and legal and structural protections.

The need for a robust infrastructure that requires partnership of government at county and national levels and industry also emerged as a concern of respondents.

Most respondents expressed need for awareness and capacity building. On awareness, respondents wanted more government information accesses by the public, especially county data. They also indicated the need for a; narrowed communication gap between the bureaucratic executive and the stakeholders (this includes use of simple language and avoiding jargons and acronyms); and availing policy documents to the stakeholders early enough for them to review the and make meaningful contributions to the policy. This concern has also resulted to calls for a public participation framework. A substantial section of the respondents wanted the government to leverage on digital technologies in engaging stakeholders, suggestions that came up included coming up with one stop website where citizen can track policies that require public participation, use of social media and start up-incubators like the ihub.

The report recommends that different stakeholders be included in more aspects of the ICT sector such as policy making and legislation, which will also address the elitist, jargon-heavy approach prevalent in the sector. Government authorities are urged to be more transparent and accountable in their ICT policies and practices, while academia should seek to increase engagement in both theoretical and industry-focused research. The report further calls for a discouragement of monopolies such as those seen in the telecommunications sector, as well as

the continued encouragement of public-private partnerships.

7. References

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