Best practices for negotiating zero-cost data in public education systems

Introduction

Equitable access to information and knowledge has become paramount to fostering educational opportunities and enabling participation in the global economy. But the journey towards digital inclusivity and universal access to online resources has been fraught with challenges, and although most of the world's population has access to the internet in some form, the expenses associated with this, together other barriers such as a lack of infrastructure, digital literacy, and unfavourable policy environments mean that inequitable internet access remains a pressing concern.

One mechanism of tackling this concern has been the negotiation of zero-rated data agreements between governments, non-profit organisations, and mobile network operators. These agreements have made it possible for citizens in various parts of the world to access essential services and information without incurring data charges, thus bridging the digital divide, and promoting digital inclusivity. This paper showcases international success stories of negotiating zero-cost data, highlighting the innovative strategies and partnerships that have made this possible. There is a dearth of information regarding how zero-cost data has been negotiated and the processes therein, but every effort has been made to distil key lessons from available public literature. This paper explicitly builds on the report by McBurnie, Adam, Kaye, and Haßler (2020), which examines zero-rating educational content in low- and middle-income countries.[1] Gathering insights from that report as well as the approaches employed in the case studies below, this paper concludes by distilling a set of actionable guidelines that can assist other countries in pursuing similar agreements.

Zero-cost data seeks to eliminate the cost of accessing certain online content. The ultimate goal of zero-cost data initiatives is to make online resources available at no cost to the end user.

One of the most effective methods of enhancing no-cost access to online learning resources is through zero-rating, where internet and mobile service providers waive data use fees for some services and websites.[2] McBurnie *et al* (2020) provide a comprehensive definition of zero-rating:

> ***Zero-rating allows internet users to access certain websites and use certain applications without incurring data charges.*** *A user could, for example, purchase a data bundle with 100 megabytes for US$1 from a particular mobile network operator. If this network operator has zero-rated a website, the user can then browse this site without incurring any data charges. In other words, data used on this website will not be deducted from the user's 100 megabytes.*
> *Similarly, some mobile network operators offer special contracts that zero-rate certain applications. A 'social media' contract may, for instance, offer zero-rated access to*

[1] McBurnie, C., Adam, T., Kaye, T. and Haßler, B. (2020). *Zero-rating educational content in low- and middle-income countries* (EdTech Hub Helpdesk Response No 8). DOI: 10.5281/zenodo.3784940. (CC BY). Retrieved from https://docs.opendeved.net/lib/4W3D35BT/download/3NBMJTSW/McBurnie%20et%20al_2020_Zero-rating%20educational%20content%20in%20low-%20and%20middle-income%20countries.pdf

[2] Sánchez Ciarrusta, I.A. (2020). Colombia: Colombia Aprende Móvil (Colombia Learns Mobile). World Bank. Retrieved from https://documents1.worldbank.org/curated/en/146571594141279582/pdf/Colombia-Colombia-Aprende-Movil-Colombia-Learns-Mobile.pdf

> *popular instant messaging applications such as WhatsApp. While zero-rating plans permit subscribers to access content on zero-rated websites and applications, these schemes do not extend to other resources linked from zero-rated sites.* ***Zero-rating programmes provide access to a specific selection of content and depend on specific financial arrangements between governments, network providers and end-users****.*[3]

Zero-rating is often used as a tool in partnerships between content providers (such as streaming services, social media platforms, or educational resources), governments, and network providers to promote certain services or improve accessibility.

Other practices and models used to obtain zero-cost data include:

- Providing data sponsored by another party, such as a government, educational institution, or an network provider,[4] which might include providing free data packs, vouchers, or sim cards for a specific amount of data for accessing educational resources or essential services.
- Creating public hotspots that learners can use at community centres
- Negotiating with network providers to shape bandwidth,[5] which can ensure that web traffic on educational platforms, for example, is favoured over other traffic.[6]
- Using Universal Service Funds (also known as Universal Access Funds), to incentivise telecommunications companies to deliver affordable services to the largest number of users. These funds can be directed to the expansion of internet services to remote and/or marginalised regions.
- Initiating corporate incentives such as tax benefits or special economic zones to accelerate the expansion of infrastructure, services, and support.[7]
- Network provider-level data cap[8] exemptions.

Successful examples of deploying zero-cost data reveal diverse approaches across different regions, often influenced by local conditions, regulatory environments, and the willingness of network providers to engage in such initiatives. In addition to those presented below, McBurnie *et al* (2020) provide examples of zero-rating in low- and middle-income countries during the COVID-19 pandemic.

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[3] McBurnie, C., Adam, T., Kaye, T. and Haßler, B. (2020). *Zero-rating educational content in low- and middle-income countries* (EdTech Hub Helpdesk Response No 8). DOI: 10.5281/zenodo.3784940. (CC BY)

[4] Sponsored data is where a third-party content provider partners with a network provider. In this arrangement, the network provider does not count the data used to access the provider's content or app against the consumer's data plan. Instead, the content provider compensates the network provider for the data costs, allowing consumers to access the content without incurring additional data charges.

[5] Bandwidth shaping refers to the practice of allocating specific amounts of bandwidth to different activities. It aims to reserve bandwidth for less intensive activities (e.g. email, ordinary browsing) and to prevent bandwidth-intensive practices such as streaming from impacting such activities.

[6] McBurnie, C., Adam, T., Kaye, T. and Haßler, B. (2020). *Zero-rating educational content in low- and middle-income countries* (EdTech Hub Helpdesk Response No 8). DOI: 10.5281/zenodo.3784940. (CC BY)

[7] Bleeker, A. and Crowder, R. (2022). Selected Online Learning Experiences in the Caribbean During COVID-19. Economic Commission for Latin America and the Caribbean. Retrieved from https://repositorio.cepal.org/server/api/core/bitstreams/e0fd3ec4-e87f-40e8-b09e-39ea5f5aae53/content

[8] Data caps are provider-imposed limits on the amount of data that subscribers can use. Users typically have a certain amount of data available per month or for a one-off 'recharge'. Users with low data caps need to use their data carefully, which means that they may avoid "data-heavy" content such as videos. Taken verbatim from McBurnie, Adam, Kaye, and Haßler (2020).

Using policy to implement zero-cost data

Governments like Indonesia and Colombia have used policy as a tool for achieving zero-cost data. In Indonesia, the Ministry of Education and Culture introduced the Data Assistance Policy in 2020 (the start of the COVID-19 pandemic), which provided internet data vouchers for students from early childhood to tertiary levels so that they could access online learning materials without charge. In 2021, they announced that they would continue the policy from March to May.[9] The vouchers were provided on a monthly basis and could only be used for online learning.[10]

In some instances, zero-rating data is nationally mandated, as was the case in Colombia at the onset of the COVID-19 pandemic. Concerned with the impact of the pandemic on young peoples' access to educational content, the Government launched free mobile learning tool called Colombia Aprende Móvil,[11] which was a mirror portal of the existing Colombia Aprende – the primary platform that hosts all educational resources aggregated by the Ministry of Education. The Ministry of Information Technology and Communications issued Decree 555 of 15 April 2020, requesting that mobile operators should provide zero-rating for access to specific educational services and websites. According to the World Bank:

> *The government held conversations to articulate and to synchronise the work between all the stakeholders, with the objective of assuring access to quality educational content for the majority of the population in Colombia, in response to the COVID-19 emergency.*[12]

Through this consultative process, the Ministries reached an agreement with network providers to offer mobile phone users (voice and data) in both the prepaid and post-paid arrangements up to 71 214 Colombian pesos (approximately USD 20). This agreement ensured that data related to this specific educational website would be charged a zero tariff. [13]

Publishing Decree 555 was a valuable intervention, as it provided a foundation to create the zero-rated portal, and acknowledged that telecommunications had become essential public services.[14] The decree was thus a critical policy intervention that leveraged the capabilities of the telecommunications sector to support education in a time of crisis, showcasing how targeted government policies can effectively address immediate societal needs while laying the groundwork for long-term digital inclusion.

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[9] Office of Assistant to Deputy Cabinet Secretary for State Documents & Translation. (2021). Ministry Continues Internet Data Assistance This Year. Retrieved from https://setkab.go.id/en/ministry-continues-internet-data-assistance-this-year/

[10] Suryani, A. and Muslim, B. (2021). As Home Learning Drags On, Students and Teachers are Beginning to Suffer. University of Melbourne. Retrieved from https://indonesiaatmelbourne.unimelb.edu.au/as-home-learning-drags-on-students-and-teachers-are-beginning-to-suffer/

[11] See movil.colombiaaprende.edu.co

[12] Sánchez Ciarrusta, I.A. (2020). Colombia: Colombia Aprende Móvil (Colombia Learns Mobile). World Bank. Retrieved from https://documents1.worldbank.org/curated/en/146571594141279582/pdf/Colombia-Colombia-Aprende-Movil-Colombia-Learns-Mobile.pdf

[13] Sánchez Ciarrusta, I.A. (2020). Colombia: Colombia Aprende Móvil (Colombia Learns Mobile). World Bank. Retrieved from https://documents1.worldbank.org/curated/en/146571594141279582/pdf/Colombia-Colombia-Aprende-Movil-Colombia-Learns-Mobile.pdf

[14] Vincent-Lancrin, S., Cobo Romaní, C. and Reimers, F. (eds.) (2022), *How Learning Continued during the COVID-19 Pandemic: Global Lessons from Initiatives to Support Learners and Teachers*, OECD Publishing, Paris. Retrieved from https://documents1.worldbank.org/curated/en/169061642797174679/pdf/How-Learning-Continued-during-the-COVID-19-Pandemic-Global-Lessons-from-Initiatives-to-Support-Learners-and-Teachers.pdf

Leveraging partnerships

Existing relationships among government and private sector actors, together with purposeful, newly formed relationships are equally important in delivering zero-cost data to end users. The Jamaican government has a history of partnering with the private sector to provide easier access to government information and services. In June 2016, the government signed a memorandum of agreement with Jamaica's largest mobile network operators, Digitcel and Flow, which zero-rated all government websites. This included more than 250 government websites.[15] During COVID-19, Jamaica's Ministry of Education, Youth, and Information zero-rated the data access to its website, which hosts educational content and online exam workbooks.[16] To address the increased need for remote learning, the Ministry held meetings with private companies to initiate zero-rated website traffic under subsidised data plans. This mechanism guaranteed that students would not be required to purchase data plans to access educational content, and that the government would be billed directly.[17]

The state of São Paulo in Brazil also leveraged long-standing partnerships. São Paulo has one of Latin America's largest educational systems, including 3.5 million students, over 5,000 schools, and nearly 190,000 teachers. Despite its size and complexity, it led Brazil in initiating responses to the COVID-19 pandemic's school closures. On 13 March 2020, the State Governor announced measures to mitigate virus spread, leading to the suspension of school activities shortly after the academic year began in February. The Secretary of Education formed a select advisory group to develop a plan ensuring educational continuity. This plan, supported by partnerships with businesses and non-profits, ranged from distributing print materials to providing free online platform access. One of the activities in the plan was the launch of the Education Media Centre, aimed at delivering educational content state-wide. This initiative introduced an app allowing free access to various online resources for six months without requiring mobile data, thanks to negotiations for data package sponsorships and tax incentives with network providers to sponsor data packages for students.

São Paulo's State Department of Education used its longstanding partnerships with civil society organisations, established since the 2011 Pact Compromisso por São Paulo, to support its education continuity strategy during the pandemic. These collaborations, which had previously supported projects like teacher career development and technology integration, were crucial in funding online educational content, providing free access to learning platforms, and hiring experts. To further this aim, the state renegotiated existing contracts, including those for school meals and transportation, to reallocate funds for students' internet access and to finance educational broadcasts. Additionally, a public request for proposals was issued in compliance with federal regulations, inviting contributions of educational content, devices, and services to ensure the continuity of education.[18]

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[15] O'Maley, D. and Kak, A. (2018). "Free Internet" and the Costs to Media Pluralism: The Hazards of Zero-Rating the News. Centre for International Media Assistance. Retrieved from https://www.cima.ned.org/publication/zero-rating-the-news/#:~:text=In%20June%202016%2C%20the%20government,zero%2Drates%20all%20government%20websites.

[16] See https://moey.gov.jm

[17] Bleeker, A. and Crowder, R. (2022). Selected Online Learning Experiences in the Caribbean During COVID-19. Economic Commission for Latin America and the Caribbean. Retrieved from https://repositorio.cepal.org/server/api/core/bitstreams/e0fd3ec4-e87f-40e8-b09e-39ea5f5aae53/content

[18] Vincent-Lancrin, S., Cobo Romaní, C. and Reimers, F. (eds.) (2022), *How Learning Continued during the COVID-19 Pandemic: Global Lessons from Initiatives to Support Learners and Teachers*, OECD Publishing, Paris. Retrieved from https://documents1.worldbank.org/curated/en/169061642797174679/pdf/How-Learning-Continued-during-the-COVID-19-Pandemic-Global-Lessons-from-Initiatives-to-Support-Learners-and-Teachers.pdf

In South Korea, the Ministry of Education, the Ministry of Science and ICT collaborated with three major telecommunications companies to arrange temporary zero-rated access to educational websites. This allowed students, teachers, and parents to use public education websites without incurring financial cost.[19]

Similarly, the Ministry of Education and Sports for Lao People's Democratic Republic negotiated an agreement with private telecommunication companies, including UNITEL and Lao Telecom, to subsidise internet subscriptions and provide unlimited data for education-related applications. The companies offered discounts of up to 50% to district and provincial education officers and teachers, allowing them easier access to educational content. Such consultations have reportedly continued for private service providers to take a more prominent role in digitalising the education system, though this approach is raising questions about anti-competitive business practices.[20]

Zero-cost models initiated by non-governmental stakeholders

Some negotiations have been initiated by non-governmental organisations or the private sector. In 2012, the Wikimedia Foundation created Wikipedia Zero, which sought to address the high mobile phone data costs associated with accessing Wikipedia. The Foundation partnered with mobile operators, which in turn, waived data costs for access to Wikipedia. In the six years that the initiative ran, Wikimedia Foundation partnered with 97 mobile operators in 72 countries, providing over 800 million people with access to Wikipedia and its related projects free of mobile data charges.[21] In February 2018, the Wikimedia Foundation announced the phase-out of Wikipedia Zero, concluding the programme by the end of that year. This reflected a strategic shift towards new approaches for increasing internet accessibility.

In other instances, private sector actors might opt for reverse-billing systems, where groups like app developers, media organisations, or even governments can offer users zero-rated access to their websites or apps, thus diverting costs away from the end users. In Nigeria, mobile network operators extensively use this model. With reverse-billing, the sponsoring entity covers the data costs for users accessing their services, negotiating favourable data rates on behalf of their customers. In the case of Nigeria, usage within data bundles was free, while out-of-bundle rates can be as low as N0.01/KB, a significant reduction from the standard N5.00/KB rate. This system benefits both the networks, which receive a reliable payment source, and the users, who gain free access to certain online services.[22]

Challenges and potential pitfalls

Although negotiating zero-cost data offers numerous benefits for improving access to educational resources, there are some potential hurdles and issues with the process if it is not carefully considered. For instance, if zero-rating arrangements are devised and driven by private

[19] World Bank Group Korea Office. (2020). EdTech in COVID-19 Korea: Learning with inequality. Retrieved from https://thedocs.worldbank.org/en/doc/286e9d2e22dd4122f15249083ca84772-0200022022/original/EdTech-paper-4-29.pdf

[20] Global Education Monitoring Report Team, UNESCO. (2023). Southeast Asia – Technology in Education: A tool on whose terms?. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000387214

[21] Wikipedia. (nd). Wikipedia Zero. Retrieved from https://foundation.wikimedia.org/wiki/Archive:Wikipedia_Zero

[22] Gillwald, A., Chair, A., Futter, A., Koranteng, K., Odufuwa, F. and Walubengo. (2016). Much Ado About Nothing? Zero rating in the African context. Retrieved from https://www.researchictafrica.net/publications/Other_publications/2016_RIA_Zero-Rating_Policy_Paper_-_Much_ado_about_nothing.pdf

entities, these entities' interests could play a disproportionate role in shaping the type of access users experience in zero-rated offerings. On the other hand, if governments spearhead these arrangements, controlling the kind of content that is prioritised and that users have easier access to could be viewed either as censorship or unethical promotion.[23]

The concept of 'net neutrality' insists on equal treatment of all types of electronic communication via networks, independent of the nature of the content, application, service, source, or its destination. Those in favour of net neutrality's principles argue that any form of content discrimination, blocking, or throttling calls for regulatory intervention to prevent such practices in the future. In jurisdictions like the United States, where net neutrality rules apply, regulators mandate that network providers use clear and transparent methods for managing internet traffic.[24] Those who advocate for zero-rating, however, contend that it allows internet users to access crucial digital resources without having to pay for this benefit. Net neutrality has thus become an increasingly contested topic. For example, zero-rating and sponsored data programmes violate California's new net neutrality law because certain content cannot be excluded from consumer data caps or usage-based pricing as this could be argued to be anti-competitive.[25] Net neutrality principles are applied to varying degrees by regulators in different parts of the world. For example, Indian regulators strictly enforce this principle, while Kenyan regulators impose no restrictions.[26]

A report by the European Commission (2017) refers to Moore and Rossini, who describe the overall benefits of several zero-rating models, such as mCent, Internet.org, and Wikipedia Zero. However, the authors explain that it is important to weigh these advantages against possible negative consequences for both the individuals using the services and the broader impact on internet competition. While these models offer some level of access at a low cost, they may inadvertently discourage efforts aimed at achieving affordable, comprehensive internet access. This could result in users being perpetually confined to a limited range of services, hindering the drive for broader, unrestricted internet availability.[27]

For this reason, decisions about zero-cost data should extend beyond mere technical considerations; it is crucial to consider the views of students, teachers, and other end-users in these decisions, as they are the ones who are impacted.[28]

Negotiating zero-cost data is not always a straightforward process, and such initiatives might be limited by capacity, technical barriers, or misalignment among stakeholders. The 'big four' mobile telecommunications providers in the United Kingdom – EE, O2, Vodafone, and Three –

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[23] O'Maley, D. and Kak, A. (2018). "Free Internet" and the Costs to Media Pluralism: The Hazards of Zero-Rating the News. Centre for International Media Assistance. Retrieved from https://www.cima.ned.org/publication/zero-rating-the-news/#:~:text=In%20June%202016%2C%20the%20government,zero%2Drates%20all%20government%20websites

[24] Gillwald, A., Chair, A., Futter, A., Koranteng, K., Odufuwa, F. and Walubengo. (2016). Much Ado About Nothing? Zero rating in the African context. Retrieved from https://www.researchictafrica.net/publications/Other_publications/2016_RIA_Zero-Rating_Policy_Paper_-_Much_ado_about_nothing.pdf

[25] Turner Lee, N. (2021). California's Net Neutrality Law and the Case for Zero-rating Government Services. Brookings. Retrieved from https://www.brookings.edu/articles/californias-net-neutrality-law-and-the-case-for-zero-rating-government-services/

[26] McBurnie, C., Adam, T., Kaye, T. and Haßler, B. (2020). *Zero-rating educational content in low- and middle-income countries* (EdTech Hub Helpdesk Response No 8). DOI: 10.5281/zenodo.3784940. (CC BY)

[27] European Commission. (2017). Zero-rating Practices in Broadband Markets: Final report. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/e47d8605-969e-11e7-b92d-01aa75ed71a1

[28] Barron Rodríguez, M.R. and Cobo, C. (2020). COVID-19 and Education in the Global South: Emergency remote learning solutions with long-term implications in *How Learning Continued during the COVID-19 Pandemic Global Lessons from Initiatives to Support Learners and Teachers.* Retrieved from https://www.oecd-ilibrary.org/sites/897cd0d8-en/index.html?itemId=/content/component/897cd0d8-en

faced calls to zero-rate remote education websites to support learning at the start of the COVID-19 pandemic. Despite these appeals and the clear need to ensure greater access to online education resources amid COVID-19 lockdowns, the companies cited technical issues related to third-party content as significant barriers to implementing zero-rating.[29] This case highlights the technical and logistical complexities of zero-rating specific types of content, together with the need for innovative solutions to these challenges.

Similarly, education planners in South Africa have encountered several obstacles in discussions with network providers. Firstly, educational institutions aim to use videos for demonstrations, but service providers are hesitant to exempt data-heavy content formats from charges. Secondly, universities often distribute their online content across various websites instead of consolidating it on a single e-learning platform. To address these issues, negotiators have advised educational institutions to recommend specific websites and applications for zero-rating. They also suggest that schools should favour options that use minimal bandwidth whenever possible.[30] Following this approach could expedite negotiations with telecommunications companies and improve access to online resources for students in areas with limited internet connectivity.

Guidelines for negotiating zero-cost data

In their report, McBurnie *et al* (2020) provide a set of overarching principles that implementers should consider before zero-rating access to educational content. This includes a zero-rating readiness toolkit for implementers to contemplate whether their country should zero-rate educational resources (Appendix One). The authors also offer implementers guidance on the zero-rating process, including who programme implementers should engage, how implementers might select websites and applications to zero-rate, and what strategies education policymakers can use when negotiating with network operators.[31] The report contains important questions for implementers to ask each set of stakeholders, such as governments and network providers. Drawing from this report, as well as the research presented above, below is a set of guidelines for negotiating zero-cost data with network operators.

- **Identify and articulate the value proposition**
  - Clearly define how the initiative will benefit educational outcomes, e.g., increasing access to learning materials, supporting distance learning, or improving literacy rates.

- **Engage stakeholders early**
  - Ensure that all parts of the agency or organisation are aligned with the initiative's goals and understand the value proposition.
  - Consult with end-users to understand their needs and the potential impact of the initiative.
  - Where necessary, the Ministry of Education could lead consultations with other government agencies on relevant policies, laws, regulations, agreements, or partnerships that might impact zero-cost data measures. Such agencies might include:
    * Ministry of Digital Affairs
    * National Telecommunications Authority
    * Department of Social Development
    * Treasury

[29] Whittaker, F. (2021). 'Big four' telecoms firms won't zero-rate remote education websites. Schools Week. Retrieved from https://schoolsweek.co.uk/big-four-telecoms-firms-wont-zero-rate-remote-education-websites/

[30] McBurnie, C., Adam, T., Kaye, T. and Haßler, B. (2020). *Zero-rating educational content in low- and middle-income countries* (EdTech Hub Helpdesk Response No 8). DOI: 10.5281/zenodo.3784940. (CC BY)

[31] See https://docs.opendeved.net/lib/4W3D35BT/download/3NBMJTSW/McBurnie%20et%20al_2020_Zero-rating%20educational%20content%20in%20low-%20and%20middle-income%20countries.pdf

    * Media Commission
    * Department of Trade and Industry
    * Competition Commission

    In conjunction with the consultation process above, stakeholders such as the World Bank Education team could provide technical assistance, collaborating with the World Bank Digital Development team as needed.
  - Identify and engage network providers early in the process. This includes decision-makers in corporate social responsibility, education partnerships, and network operations.

- **Prepare a detailed proposal**
  - Provide estimates of data usage based on the number of expected users and the bandwidth requirements of your educational applications or websites.
  - If opting to zero-rate content, work with technical experts to ensure that this is technically feasible and will not adversely impact the network provider's network.
  - Ensure that all equity considerations have been taken into account, including access to adequate network infrastructure and devices.
  - Outline the initiative's scope and how it will be sustainable over time, including scaling strategies and how ongoing costs will be managed.

- **Leverage partnerships**
  - Consider partnering with schools, universities, educational authorities, and teachers unions to provide additional leverage when negotiating with providers.
  - Seek endorsements from government agencies or educational bodies to strengthen your proposal's credibility.

- **Highlight mutual benefits during negotiations**
  - Emphasise how supporting community development and social responsibility can enhance the network provider's brand and public image. Highlight how their participation can positively impact their brand and customer satisfaction by potentially increasing network subscribers, raising demand for paid services, and increasing market share.[32]
  - Explore potential areas for compromise, such as setting daily time and data limits to lower the immediate expenses of providing zero-cost data.
  - Highlight potential increases in customer loyalty and positive public relations that can arise from supporting community-focused initiatives.
  - Consider using targeted tools such as policies, incentives, or regulatory concessions to negotiate with network providers.
  - Offer to share data insights with mobile providers about the usage and impact of the initiative.

- **Negotiate clear terms**
  - Agree on the duration of the agreement, with provisions for review and renewal.
  - If relevant, specify which services will be zero-rated and ensure there's a clear understanding of any limitations or exclusions.
  - Ensure that the agreement stipulates that users will receive clear messaging when they enter and leave zero-rated platforms or when data caps have been reached.

[32] Providing zero-cost data offers an opportunity to increase network subscribers and raise demand for paid services. In Kenya, Airtel found that 15% of free-data users transferred to paid internet packages within six months. This argument may gain more traction when combined with an offer to subsidise zero-rating costs with universal service funds. See https://docs.opendeved.net/lib/4W3D35BT/download/3NBMJTSW/McBurnie%20et%20al_2020_Zero-rating%20educational%20content%20in%20low-%20and%20middle-income%20countries.pdf

  - Establish performance metrics and a monitoring framework to assess the initiative's impact and adjust as necessary.

- **Ensure legal and regulatory compliance**
  - Ensure that the agreement complies with local regulations and policies regarding net neutrality and data services.
  - Address data privacy concerns by ensuring that user data is handled in accordance with applicable privacy laws and regulations.

- **Communicate activities and implications**
  - Notify content providers, government agencies, and other relevant stakeholders about the initiative.

- **Conduct monitoring and evaluation**
  - Implement mechanisms for users to provide feedback on the initiative, which can be used to demonstrate impact and make improvements.
  - Document and share the impact of the initiative, including case studies and testimonials.
  - Invite network providers, government agencies, and other stakeholders to participate in the evaluation process.
  - Share lessons learned and best practices with the broader educational community.

Appendix One

The table below, taken from McBurnie *et al* (2020), provides a comprehensive list of questions for implementers to consider before establishing a zero-rating programme.

Table 1 Zero-rating readiness toolkit[33]

Area	Questions
Accessibility concerns	Do students have access to appropriate hardware (e.g. feature phone, smart phone, tablet)?
	Do learners have access to phones with sufficient storage capacity and features to support mobile applications?
	Does access to hardware vary across regions?
	What regions do service providers offer internet coverage?
	To what extent are students digitally literate?
	How does internet coverage and bandwidth strength vary across regions?
Availability of a learning platforms with suitable content	Does the government have a list of content providers that offer open education resources?
	Does the government have an existing repository of curated and curriculum-aligned e-learning materials?
	Do other education providers have existing repositories of curated and curriculum-aligned e-learning materials?
	Can students use existing materials without high bandwidth?
	Can organisations quickly develop materials for use without high bandwidth?
	Does the government or other education providers have existing e-learning platforms with offline functionality?
	Do service providers need to overcome any technical obstacles to zero-rate content?
Capacity of existing network infrastructure	Do service providers have adequate infrastructure and network capacity?
	What are the bandwidth limitations of different service providers?
	Are service providers planning to invest in network infrastructure?
	Can existing infrastructure cope with increased network demand? If so, to what extent?
Policy environment	Does the government have an open internet policy or a strong position on net neutrality?
	Does the government have any laws that could impact the scope of a zero-rating initiative?
	Are there any government financing mechanisms that could fund a zero-rating programme?
	Does the government have any universal service funds available?
	Are there any regulatory or political obstacles to accessing universal service funds?
	Does zero-rating align with the government's long-term objectives for national education?

[33] See https://docs.opendeved.net/lib/4W3D35BT/download/3NBMJTSW/McBurnie%20et%20al_2020_Zero-rating%20educational%20content%20in%20low-%20and%20middle-income%20countries.pdf