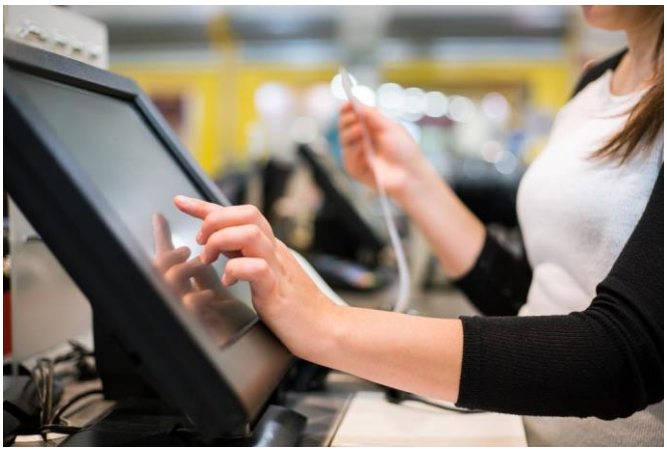

UNIT 3.

RECOMMENDATIONS FOR TEACHERS

AIM

To provide recommendations for teachers when explaining selected strong functionality systems (Ustad mobile, Kolibri, Rumie, Pocket)

IMONED consortium

Unit 3. Recommendations for teachers

3.1. Introduction to systems with strong offline functionalities

The online learning revolution generated excitement about the potential for broad free access to educational resources. However, it is estimated that 4.5 billion people worldwide still lack Internet access which eventually means the least access to quality education in general, including fewer qualified teachers per student and fewer educational materials (one billion children lack access to quality education). So, systems with strong offline functionalities give the right opportunities to such learners to improve their learning even in such circumstances.

Before presenting the selected resources, a few general recommendations for offline applications are included in this unit (Corcobado, 2017):

- Be proactive and anticipate the content we may need or want to consume to download previously.
- Find a good connection, preferably Wi-Fi, to download content as quickly as possible.
- Check the status of the storage unit in advance if it is full or has content already used.
- Remember to delete everything when it is no longer needed. Maintaining good cleanliness in the storage areas of the terminal is essential to avoid performance problems and, thus, we will have it ready for new downloads.

The selected resources for learning with strong offline functionality are exposed in the following sections (Belo Costa, 2020; Khan, 2020).

3.2. Description of the technology Ustad Mobile

Access and share educational content offline

Ustad Mobile allows educators to upload learning materials, including rich media files, quizzes and games, and make them accessible on almost any mobile device. Students can access the learning content offline.

Ustad Mobile gives learners and educators access and allows them to share educational content offline. Learners have access to their coursework, complete assignments and choose eBooks, interactive exercises or videos from the library to learn. It helps people with poor internet connectivity access educational content in remote locations like Afghanistan or refugee camps in Bangladesh and Jordan. The company's app allows the disadvantaged, displaced and marginalised minorities in society to learn from educational content that can be shared offline through Bluetooth technology and a peer-to-peer sharing feature.

Everything is present in both online and offline modes. But scores and submissions get updated automatically when connected to the internet. Once the app is downloaded onto a phone, it can be distributed to other devices without requiring additional hardware or connectivity services. A teacher, for example, could download a learning module and share it with 20 colleagues instead of each staff member downloading it separately.

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On the other hand, educators can easily add, remove and edit educational content. Create class assignments, track student progress, record their feedback and grades, manage class details, calendars and record attendance. Also, it provides built-in support for their existing content, including video, audio, EPUB, PDF and Experience API files. Organisations can have efficient, streamlined reporting direct from teachers and students. Raw data and API is also accessible.

Title of the technology	**Ustad Mobile**
Identifying logo	Ustad Mobile
Open source (yes/no)	YES
Official website	https://www.ustadmobile.com/
Key Features:	No Internet, Wi-Fi, or Mobile Data Required Content Delivery Create and deliver interactive learning content with quizzes, text, images, audio and video. Use standard EPUB files or TinCan exports. Record-Keeping Capture and digitise paper enrollment records and grade books instantly. Track usage time and learner progress. Attendance Tracking Capture and digitise paper attendance sheets instantly. Use fingerprint or voice authentication to verify attendance. Multi-Platform Deliver interactive learning content on Java-enabled feature phones, Android smartphones, tablets, laptops and desktops running Windows and Linux. Works Offline Distribute interactive learning content offline between devices with peer-to-peer sharing. When a connection is available, usage time, learner progress and digitised paper records are logged offline and uploaded to a cloud server. Open Source Ustad Mobile is built and run on open source software
Strengths of the technology	Educators can easily add, remove and edit educational content. At the same time, learners can access coursework, complete assignments and choose e-books, interactive exercises or videos from the library to help them learn. There is built-in support for your existing content, including video, audio, EPUB, PDF and Experience API files. Educators can manage class details calendars and record attendance.

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	Teachers can create class assignments, track student progress and record feedback and grades for students. Everything works online or offline; learners' scores and submissions sync automatically when they reconnect.
Weakness of the technology	It is nost a complete solution for learning, the resource provide only a few pieces of a much larger, incomplete puzzle, complementary to other learning resources.
Why using in education?	A unique offline sharing system enables users to share the app and content between phones without requiring Internet access or extra hardware. Organisations can get a rebranded version of the Ustad Mobile application.
Main interface issues	Easy to Use: An easy-to-use interface for learners, teachers and organisations. Accessible: The application is accessible for those with visual or hearing impairments. Localisable: Available in 10+ languages and easy to translate into any other.
Official guidelines for users (links)	https://www.youtube.com/watch?v=oPRwfk6lmlQ&ab_channel=UstadMobile
Resources links	https://www.engineeringforchange.org/solutions/product/ustad-mobile/#:~:text=Ustad%20Mobile%20is%20an%20open,images%2C%20audio%2C%20and%20video. https://github.com/UstadMobile https://play.google.com/store/apps/details?id=com.toughra.ustadmobile&hl=es&gl=US

3.3. Description of the technology Kolibri

Learning application to support universal education, available in more than 20 languages

Kolibri, also known as Learning Equality, is committed to enabling every person in the world to realise their right to quality education by supporting the creation, adaptation and distribution of open educational resources and creating supportive tools for innovative pedagogy. Kolibri was officially launched in December 2012, sparking an enthusiastic global response that led to a flood of requests for support, features and partnerships. This platform builds solutions for distributing and hosting open educational

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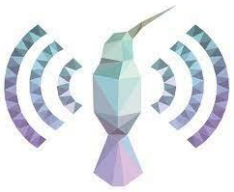
resources via low-bandwidth and offline channels, taking advantage of existing infrastructure or low-cost and low-power hardware solutions.

Kolibri is designed to provide offline access to a curated and openly licensed educational content library. Available in dozens of languages, the Kolibri libraries are designed to support a well-rounded curriculum, including traditional and educational materials, such as lessons, assessments and exploratory materials, as books, games and simulations.

Title of the technology	Kolibri
Identifying logo	
Open source (yes/no)	YES
Official website	https://learningequality.org/kolibri/
Key Features:	Kolibri is designed to run on as many devices and operating systems as possible to facilitate broad, low-cost adoption, leveraging existing legacy hardware or low-cost off-the-shelf devices. This includes Windows, Linux and OSX. The cost of Android tablets is plummeting, so Kolibri is also being build to run standalone as an Android app. It's packaged for offline use. It has developed unique processes for packaging online learning materials to be taken offline. One of its innovations is a video compression technique that converts the pen strokes and objects in a blackboard-style video into scalable vector objects. In the tests, a 250MB video can be compressed into just a single megabyte while retaining most of the original quality. This reduces the time and cost needed to download a large set of videos and allows a large amount of content to be stored on a small, low-cost device. Kolibri supports self-paced learning. Track educational growth for individuals and learners accurately and efficiently, even in informal educational contexts. Kolibri comes with tools such as a coaching dashboard, exam creation, exercises, assignment of content for differentiated instruction and a recommendation tool that displays valuable and relevant next steps based on a learner's history, progress and goals. Licence/Fees Free/Open Source

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	Enables syncing and sharing. Devices running the Kolibri Learning Platform can find and directly connect with each other over a local Wi-Fi network, allowing for easy content sharing and data syncing.
Strengths of the technology	Curated and openly licensed educational content library +20 languages included Kolibri Studio revamped as a core component of the product ecosystem to support scaled use of the tool. Kolibri Studio continues to support curriculum alignment efforts and they are making collections of learning resources pre-aligned to curricular standards in multiple countries readily available. Video Compressor
Weakness of the technology	
Why using in education?	1. "Seeding" a Device Kolibri installers, updates and content can be downloaded once to a device in an area that has an Internet connection 2. Peer-to-Peer Distribution That "seeded" device can then share new content and updates with other devices over an offline local network. 3. Last Mile via "Sneakernet" To reach the most remote communities, a device can be carried by foot to share installers, updates and content with other devices over local networks.
Main interface issues	Kolibri Studio gives full control over the organization of the educational materials intended to use on the Kolibri Learning Platform. With tools to select and organize sets of resources, add descriptions and custom exercises and flag them as learner- or coach-facing, Kolibri Studio is the place to bundle, remix and describe materials to best meet the user needs and those of the Kolibri users are working with.
Official guidelines for users (links)	https://kolibri.readthedocs.io/en/latest/ https://learningequality.org/documentation/
Resources links	https://kolibri-studio.readthedocs.io/en/latest/

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	https://drive.google.com/drive/folders/1QeDUAAON3dUnKOPdQrkFfTywt_d_7ddG https://edtechreview.in/trends-insights/trends/2175-distributing-open-educational-content-offline https://oecdedutoday.com/wp-content/uploads/2021/04/Jordan-Edtech-without-Internet-Kolibri.pdf

3.4. Description of the technology Rumie

Education tools and content to enable lifelong learning for underserved communities

Rumie is an offline learning platform that removes barriers to learning through innovative technologies. To do so, Rumie creates and shares free digital learning resources and deliver them to learners in underserved communities with the most to gain. The Rumie Initiative is a non-profit tech startup with a mission to bring the surge of free learning content available online to communities least likely to access it but with the most to gain. The Rumie platform distributes mobile-friendly, microlearning courses that can be completed in under 10 minutes. It contains instructional PDFs, audios and videos and other resources available for offline use. Rumie innovates with technology to lower the cost of learning resources.

Title of the technology	**Rumie-Learn**
Identifying logo	
Open source (yes/no)	YES
Official website	https://learn.rumie.org/jR
Key Features:	Rumie-Learn is a collection of short learning experiences (called Bytes) that focus on building transferable career and life skills. Each Byte is a unique opportunity to expand knowledge and abilities in under 10 minutes. Program Area: Education, Human Rights, Poverty Alleviation & Economic Development

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	Location of Impact: Global, Africa, Asia, Middle East, Benin, Canada, Gambia, Ghana, Haiti, India, Liberia, Rwanda, Sierra Leone, South Africa, Syrian Arab Republic, Tanzania, Uganda. Product: Platforms Web, Mobile Apps, Hardware, Open Source
Strengths of the technology	Every Byte (lesson) allows learning a new concept in minutes and is 20% more efficient than traditional learning. New Bytes on a range of topics are published daily. Bytes are created through open collaboration between Rumie and volunteer professionals. Rumie reviews all Bytes to ensure compliance with developers' quality standards. Bytes fill the gap between what it is learned at school and what it takes to succeed by building the habit of lifelong learning. They operate like a tech company: build rapidly, iterate using data and are willing to take risks to make a big impact.
Weakness of the technology	The Byte author(s) are responsible for the content completeness and reliability.
Why using in education?	The Rumie platform distributes mobile-friendly, microlearning courses (Bytes) that can be completed in under 10 minutes.
Main interface issues	Attractive, Bytes can be downloaded and saved as favorite for visualizing them later. Recommended and trending Bytes are highlighted in the main site. Courses are well classified in categories. The time required for every Byte is showed.
Official guidelines for users (links)	https://about.rumie.org/volunteer https://www.youtube.com/watch?v=L3rx3d8y9pc&ab_channel=RumieLearn
Resources links	https://twitter.com/rumielearn?lang=es https://telecomdrive.com/how-rumie-can-help-telecoms-bridge-the-digital-divide/

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3.5. Description of the technology Pocket

Application and webservice that allows user to manage text lists from internet

Pocket is a handy tool for educators who always read to make the perfect lesson resource. While browsing the internet and finding an article to read later, one can easily save that resource on the pocket and access it when needed without depending on the availability of the internet.

All it is needed is to press the Pocket web extension and it automatically syncs to all the devices that have the Pocket app. Currently, it is a go-to resource bucket that allows to read wherever and whenever.

Title of the technology	**Pocket**
Identifying logo	pocket
Open source (yes/no)	NO
Official website	https://getpocket.com/
Key Features:	Pocket's main function is to store information offline that you can later review even if you don't have an internet connection. The other thing you can do with Pocket is to organise the information you find on the Internet. Syncing and Downloading are two different steps in Pocket. Syncing helps make sure that Pocket is fully up-to-date with the latest changes or additions made. Downloading then happens after syncing to store the saved items on the device so they can be read offline. Download Priority to determine whether the newest or oldest items are prioritized until Pocket reaches its limit
Strengths of the technology	Registration with Google account Free Computer, mobile phone and other applications are synchronized Integration with Slack, Amazon Alexa, Kindle devices, Feedly and Evernote

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Weakness of the technology	Videos cannot be downloaded to Pocket. Most popular videos sites, including YouTube, don't allow services like Pocket to download videos for offline access. In order to view videos, the user must be online. Pocket for Mac is the sole offline option on desktop, available on macOS computers only. The Pocket team is looking into expanding offline support so PC users can enjoy Pocket offline in the future.
Why using in education?	In college, taking notes is a good practice, but spending a large part of a class just writing down what can already be found on the internet is a waste of time.
Main interface issues	To save the information you just have to click on the + button and paste the web address of the content you want to save. To be able to do it from a device, you must go to your browser and select the option to share and choose pocket from the available options.
Official guidelines for users (links)	https://help.getpocket.com/article/1136-using-pocket-offline
Resources links	https://www.shoutmeloud.com/pocket-review-offline-reading-app.html https://www.quora.com/Is-Pocket-Save-Web-View-for-offline-viewing https://www.xatakandroid.com/aplicaciones-android/15-trucos-para-pocket-aprovecha-al-maximo-la-app-para-guardar-todo-lo-que-veas-por-internet

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