

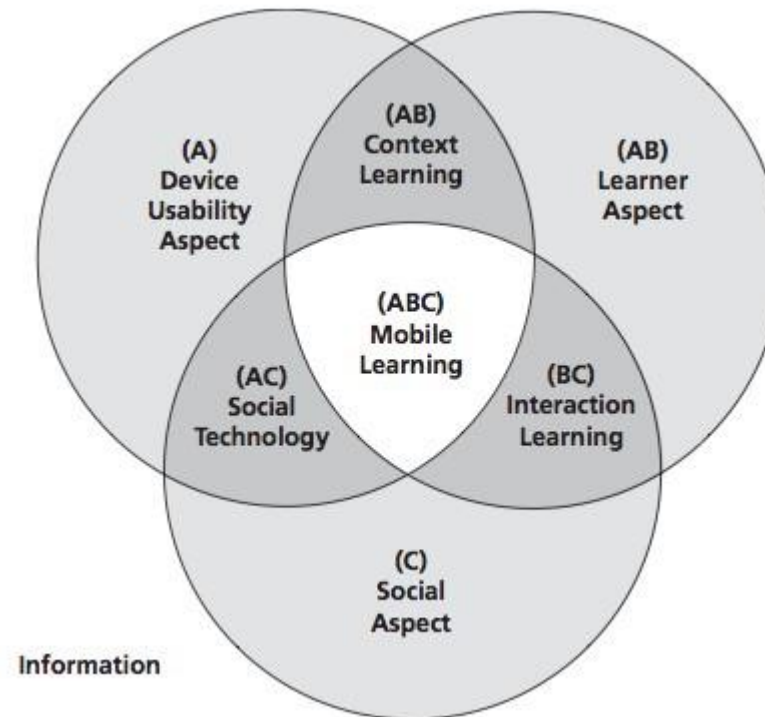


## Outline

- Theories for m-learning
- Our strategy
- moodchapp
- Use cases

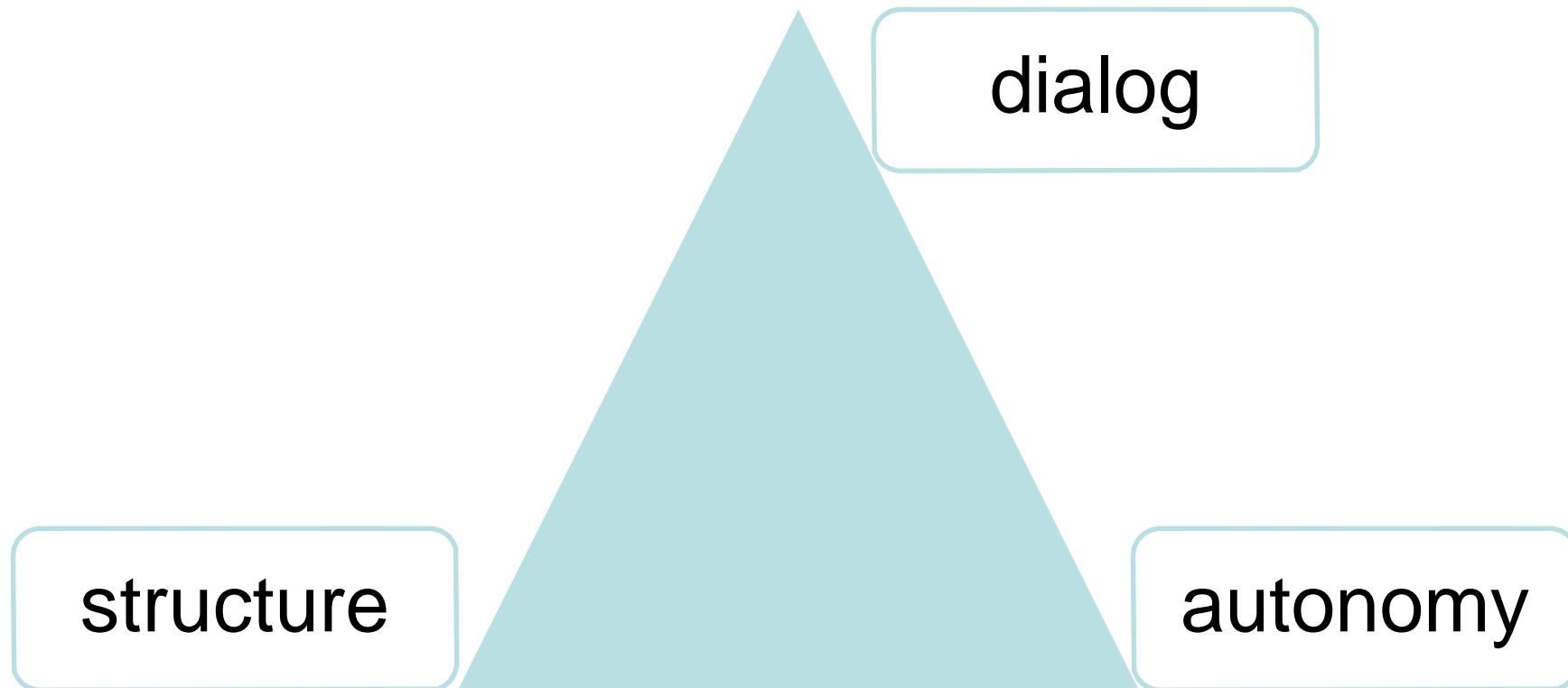
## Theories for m-learning

- FRAME – Koole, 2009



## Theories for m-learning

- Transactional distance – Moore, 1993

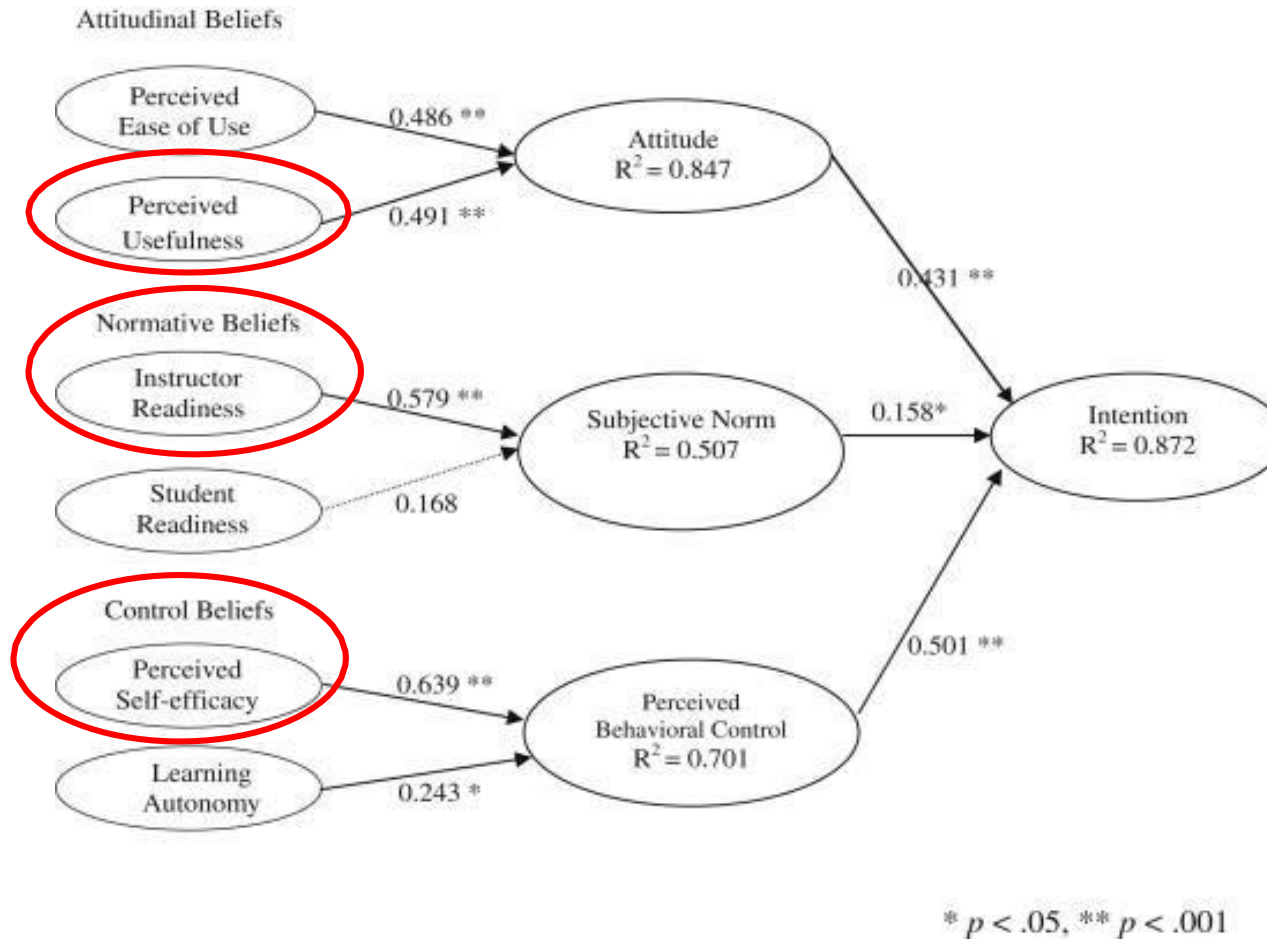


## Theories used for m-learning adoption

- Technology acceptance model (TAM) – Davis, 1989
- Unified Theory of Acceptance and Use of Technology (UTAUT) – Venkatesh & Davis, 2000
- Theory of planned behaviour (TPB) – Ajzen, 1991

## Theory of planned behaviour (TPB)

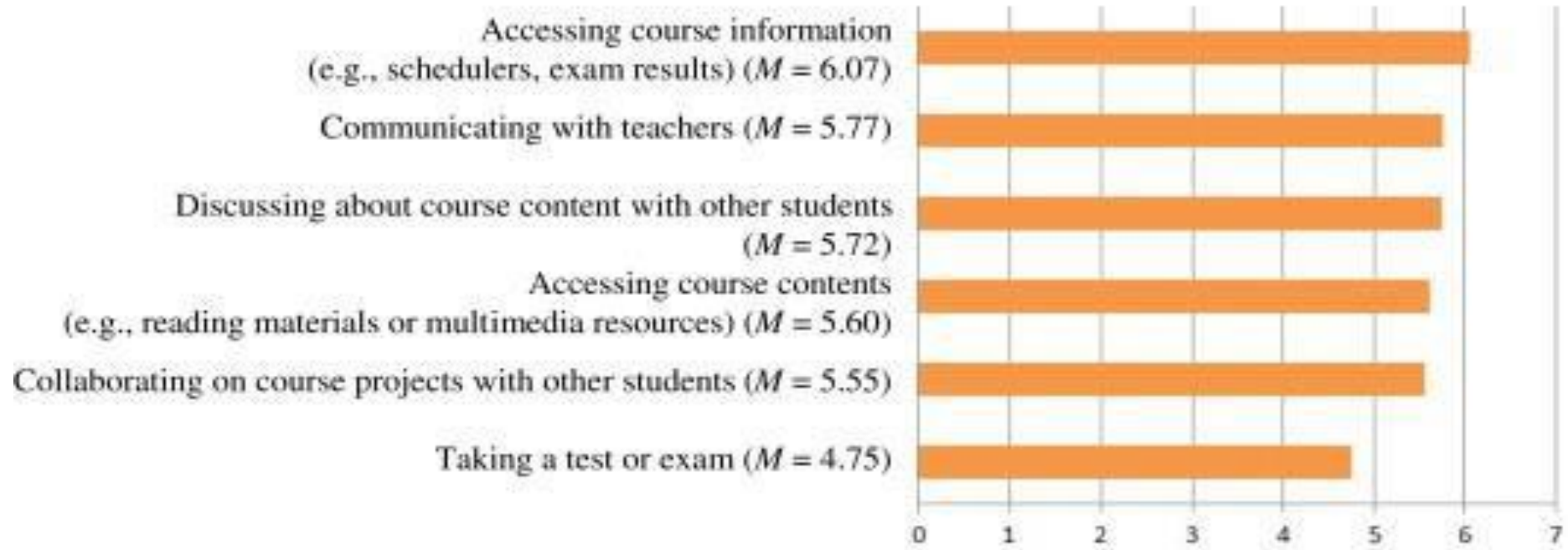
- Attitude
  - Perceived ease of use
  - Perceived usefulness
- Subjective norm
  - Instructor readiness
  - Student readiness
- Perceived behavioural control
  - Perceived self-efficacy
  - Learning Autonomy



Cheon, 2012

<http://dx.doi.org/10.1016/j.compedu.2012.04.015>





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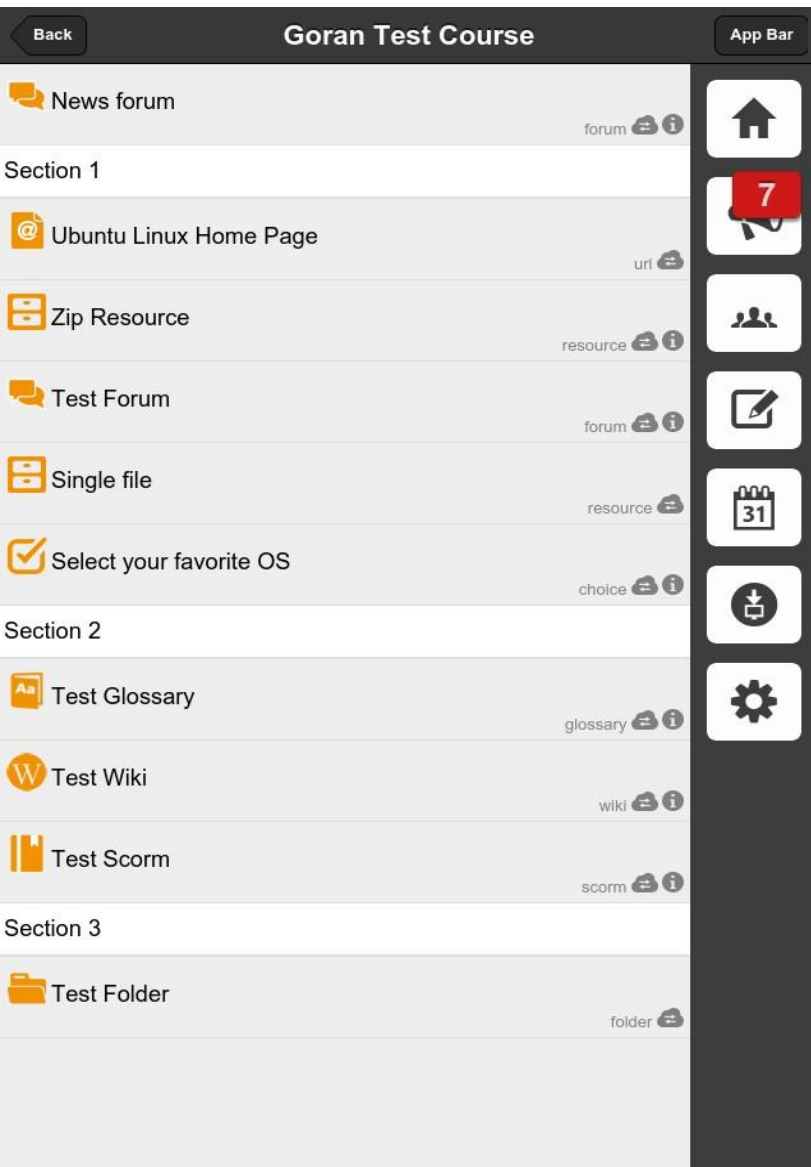




## **Our strategy**

- Responsive design theme on Moodle and any other learning tool
- Mobile Learning and Teaching courses for our teachers
- Introduction of one hybrid Moodle mobile app

# moodchapp - alternative moodle mobile app



eLab

Università della Svizzera

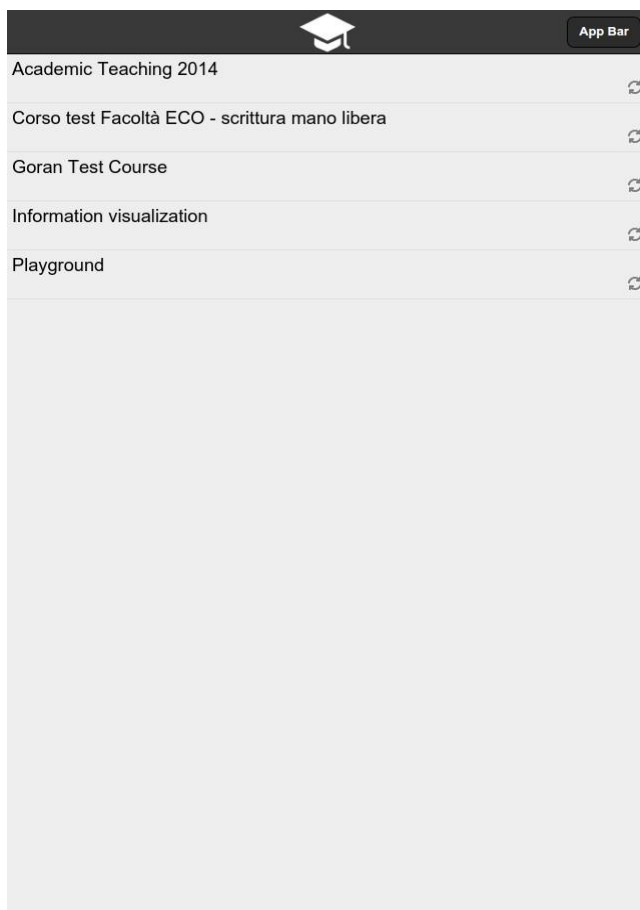
italiana Goran Josic

([goran.josic@usi.ch](mailto:goran.josic@usi.ch))

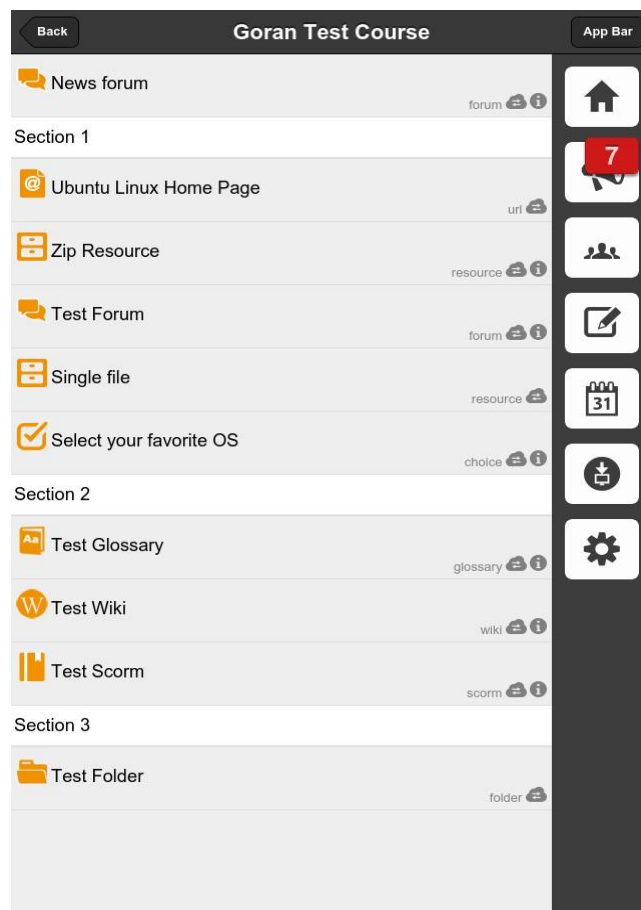
# Goals

- Simplified user interface
- Offline capabilities
- Keep in touch with participants
- Support for iOS and Android

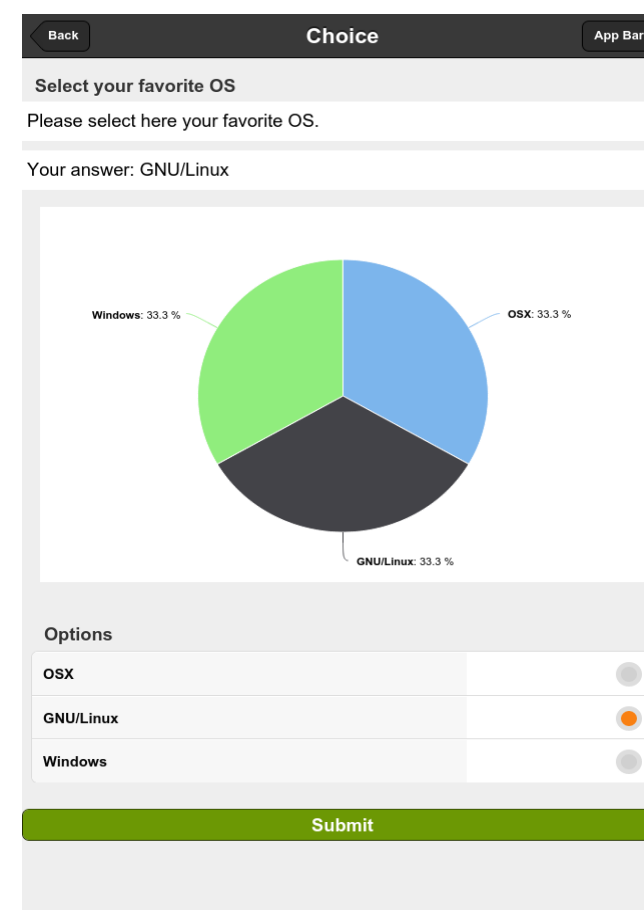
# Simplified user interface



List of courses



Course content and app bar



Activities

# Supported activities

The app has a range of Moodle activities that it supports:

- Forum
- Assignment: file and/or text
- Choice
- Scorm

Moodle resources that are supported

- Page
- File
- Folder (with subfolders)
- Book

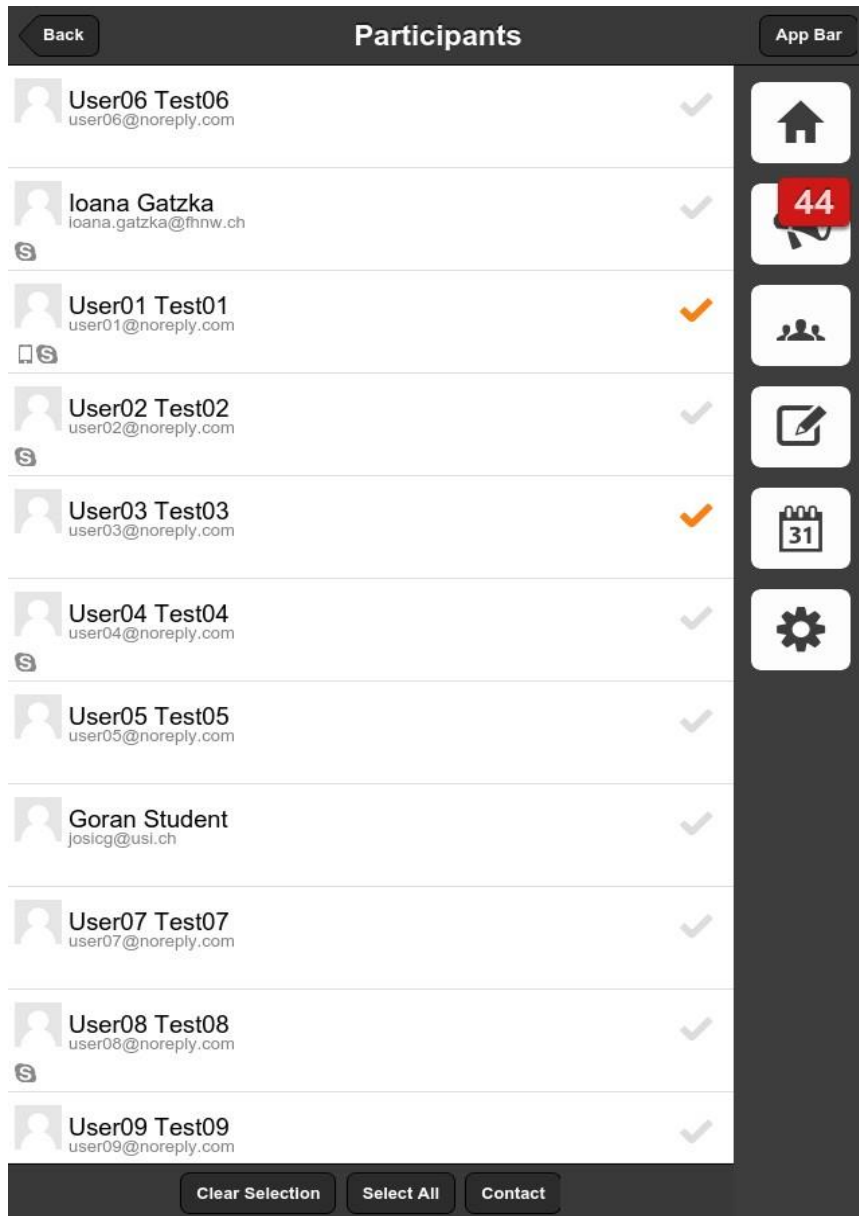
# Offline capabilities

The app stores contents for offline reading during usage.

The user can purge the cache if needed. Once synced courses are in offline mode available.

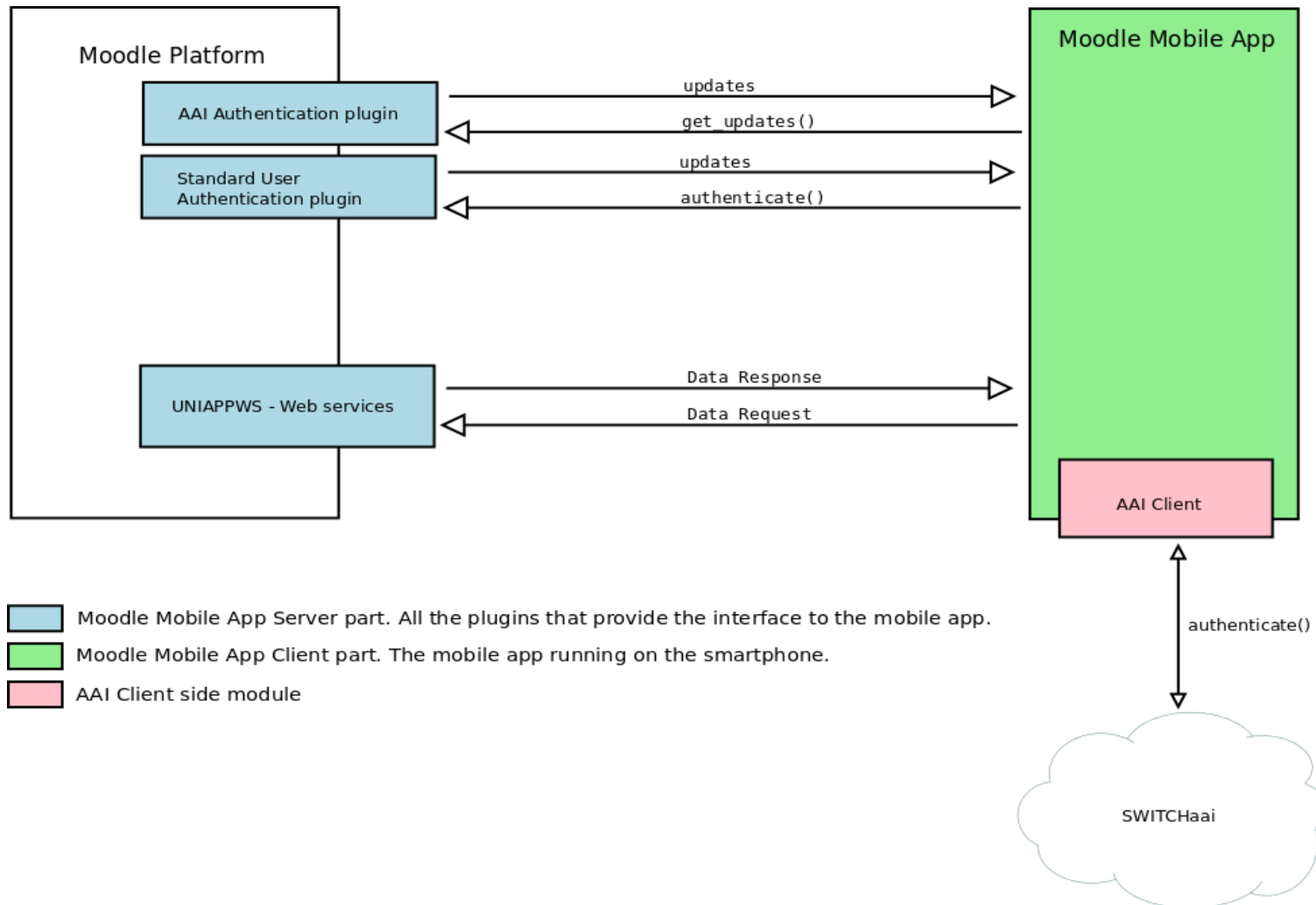
- Course content
  - Resources and Activities content  
(html, folder structures)
  - Files  
(all file formats: pdf, zip archives, folders)
    - additional apps required to open and manipulate them
- User content
  - Forum posts  
(html, attachments)

# Keeping in touch



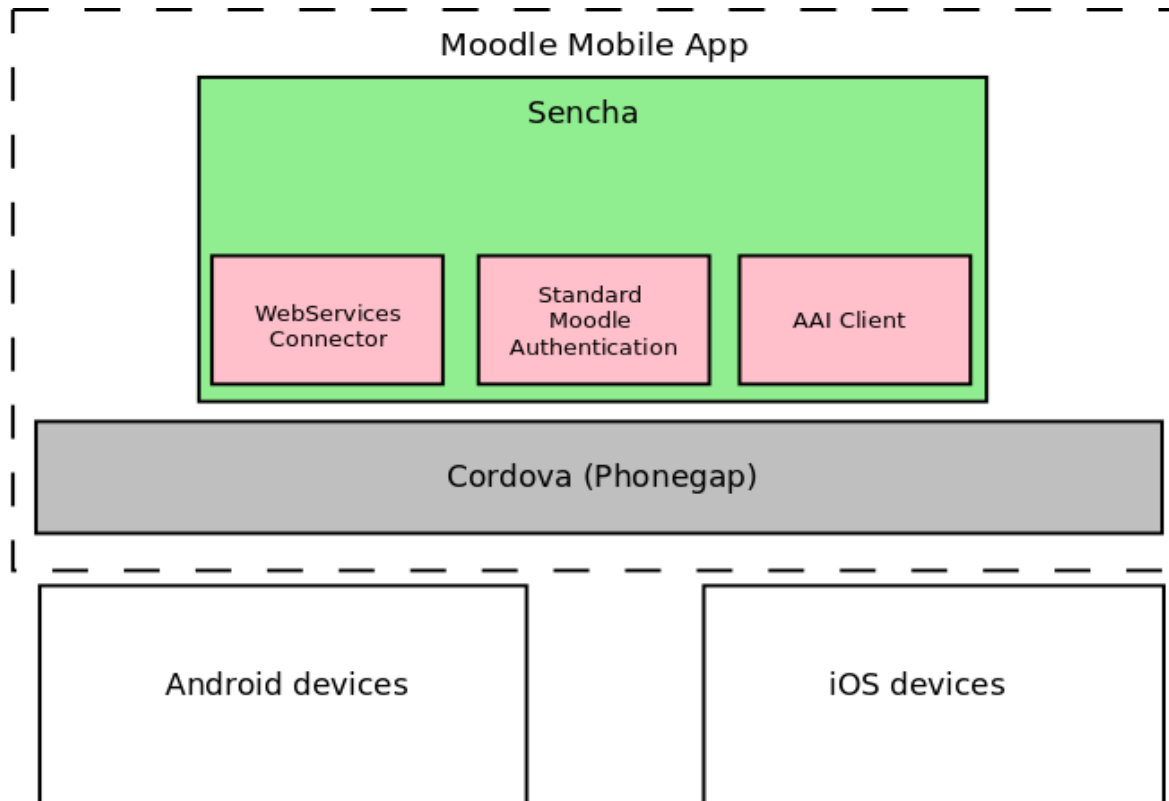
- Forum
- SMS
- Phone
- Skype (if the skype client is installed)




# Technical details





# Technical details



-  This is the Moodle Mobile app code. It is Sencha based.
-  Cordova (phonegap) framework provides a native app layer and allows the app to be cross-platform.
-  These modules are used for authentication and data exchange between the platform and the app.

# Technical details: Stages

The app downloads the course data from the platform in three stages and each stage :

## Stage 1:

The user is authenticated and the course list and personal data are downloaded and stored in the cache.

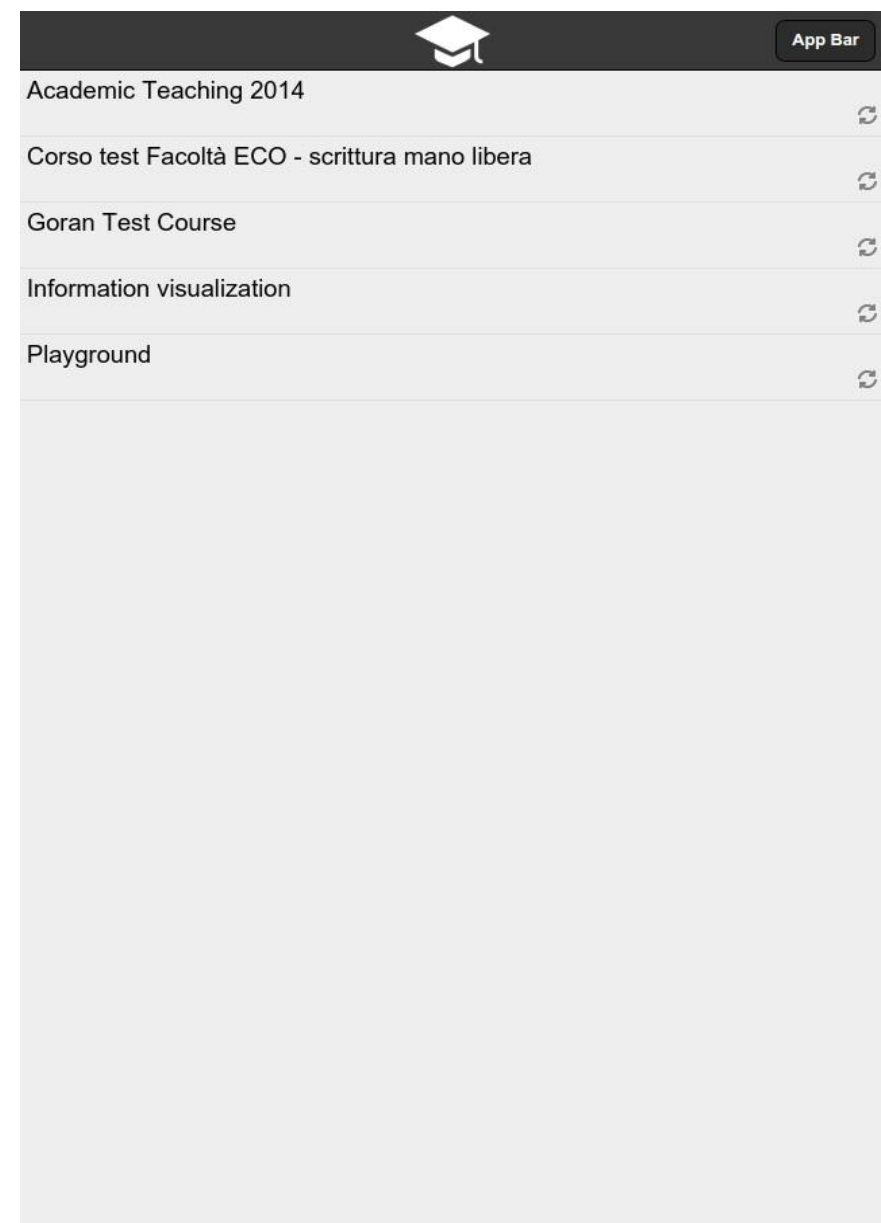
## Stage 2:

The user selects a course from the list. The course data are downloaded. This allows the user to navigate the course and read all the html and text based content. Folder trees are downloaded as well. The files are not downloaded.

## Stage 3:

The user downloads the files one by one or activates the multi-download mode and selects all the files or a subset. The downloaded files are stored on the device and are available for offline usage.

# Technical details: Stage 1



Once the user starts the app the authentication process is activated.

During the authentication process the app sends the username and password.

The authentication plugin answers with the user data and list of courses the user is enrolled to.

The Stage 1 consists of one single request to the server.

# Technical details: Stage 2

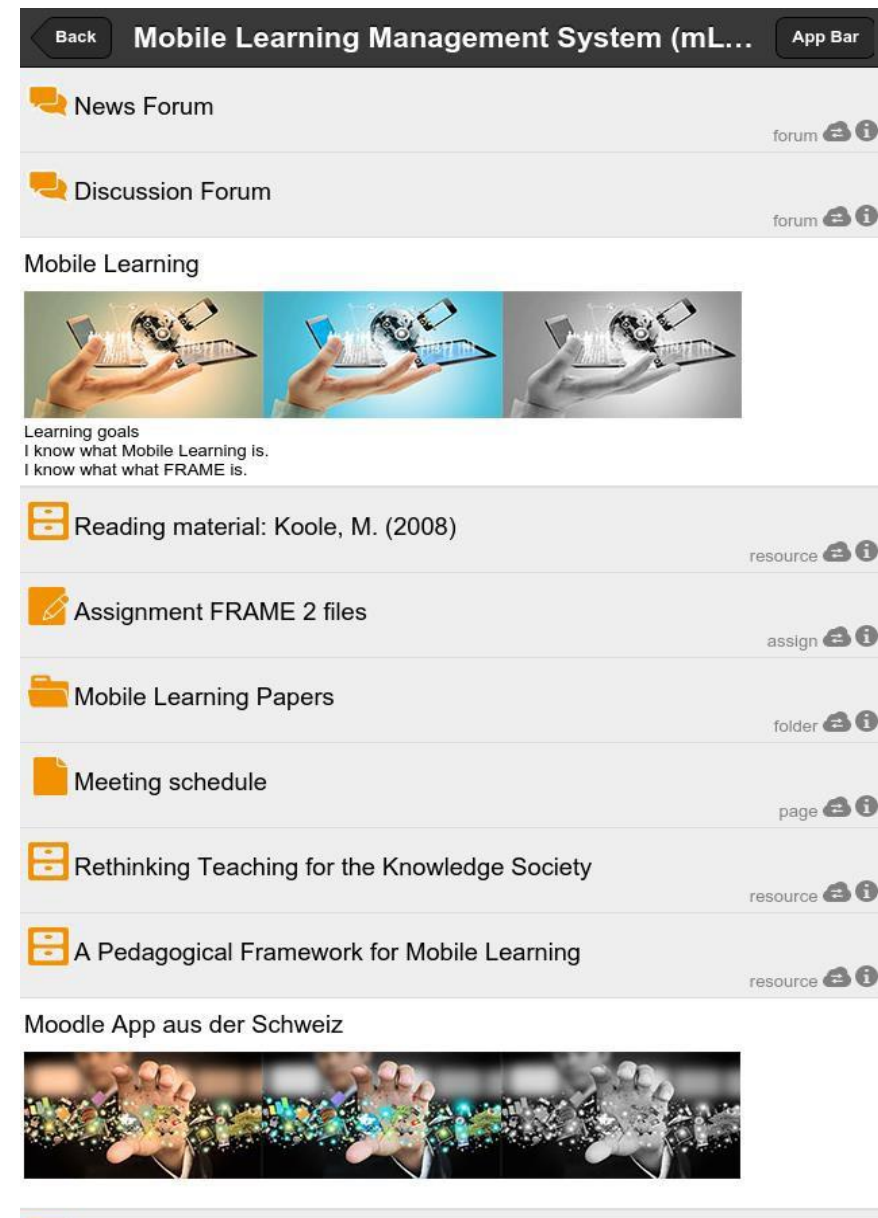
The user selects one of the courses in the list.

The app sends the course id and the course token to the moodle platform.

The moodle platform answers with course data containing everything but the files.

The app stores the course data in the cache and prompts the course content to the user. The content is now navigable and can be consulted offline.

The Stage 2 also consists of one single request to the server.



# Technical details: Stage 3

Because of the size the Stage 3 is demanded to the user choice.

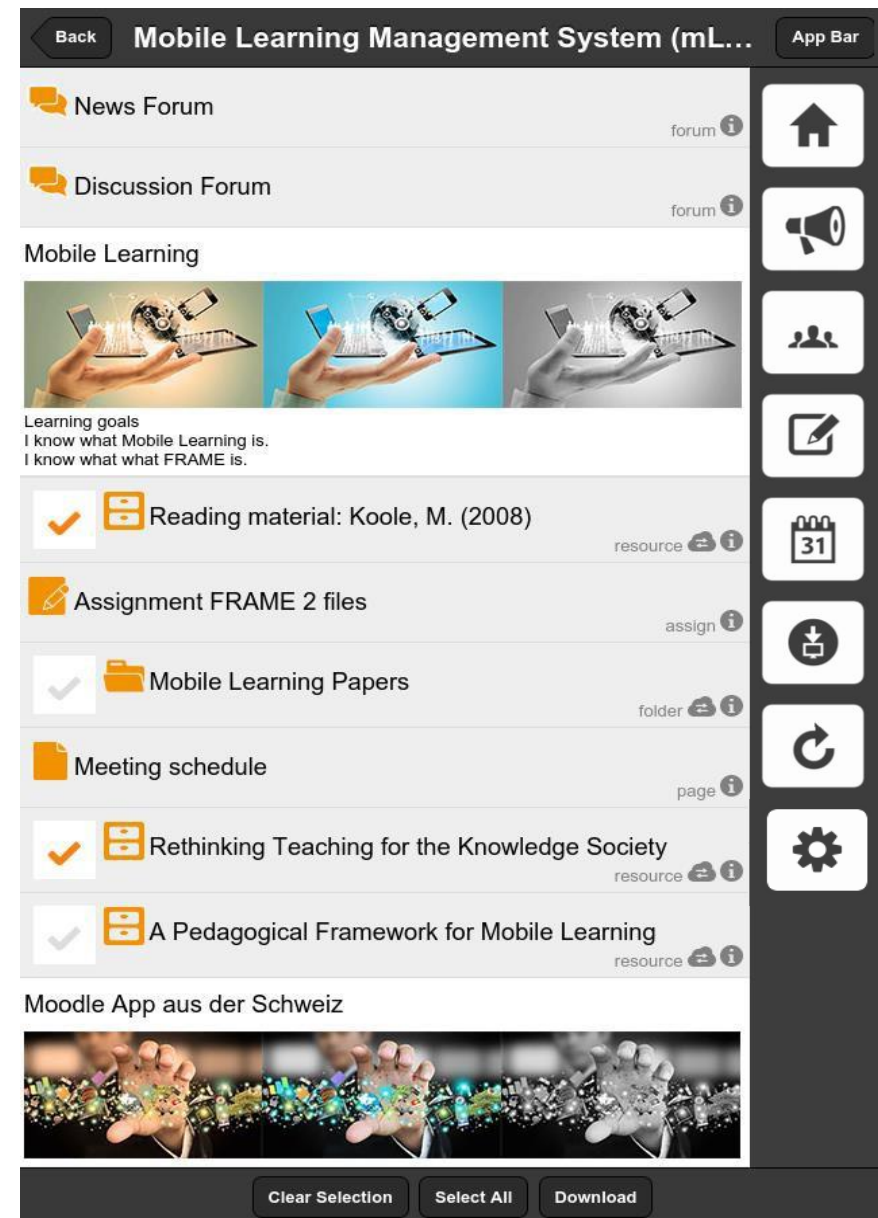
The user can download only the files he/she wants to have available for offline usage.

The user can also activate the multi-download mode, select all the files and start the download process.

The downloaded archives are unzipped and stored in the cache.

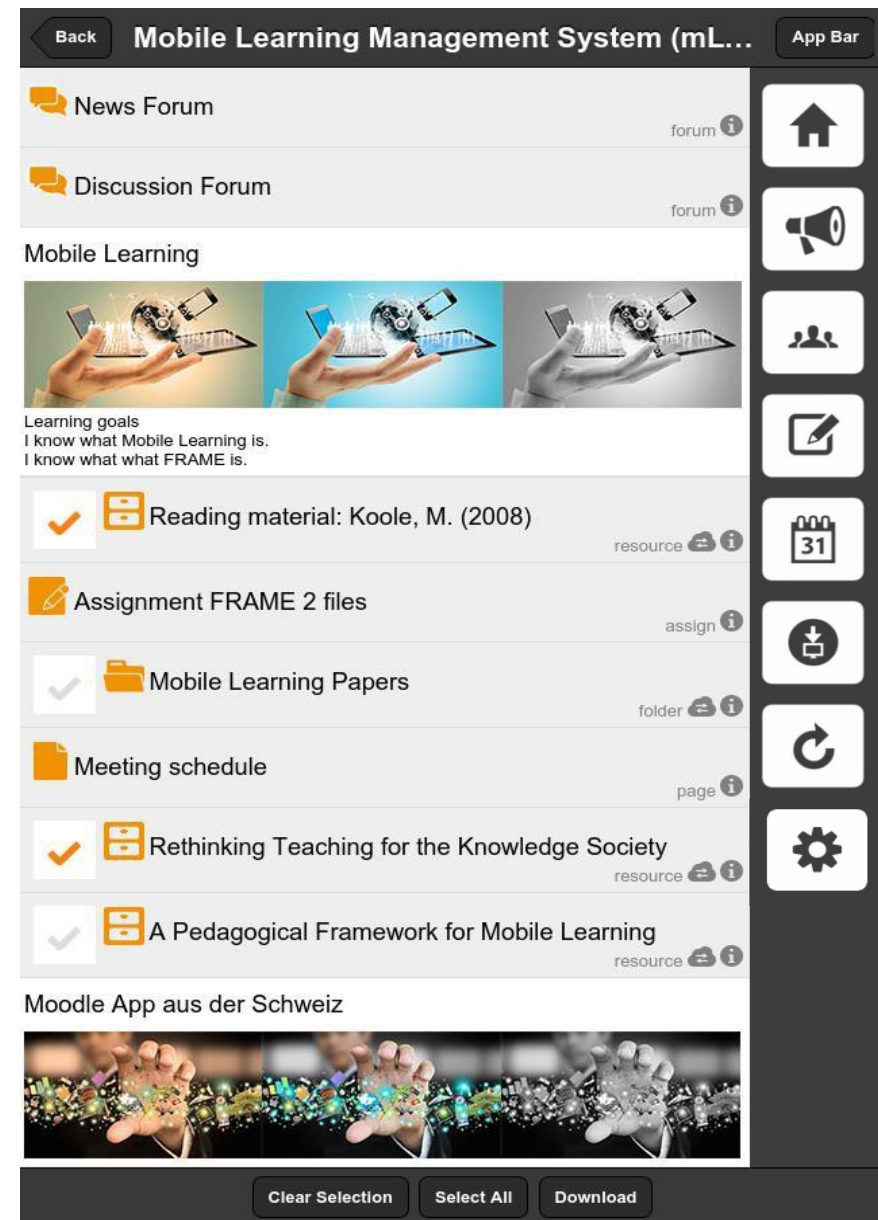
The Stage 3 number of requests depend on the number of files to be downloaded.

Additional data are downloaded during the Stage 3. Every time the user accesses a Forum Discussion the app downloads the latest posts. Same holds for the Choice statistics and Assignment settings.



# App bar

- Home button
- Recent activities in the course (alert when files have been changed/added)
- Participant list
- Grades
- Calender events
- Bulk download of files
- Re-sync the course



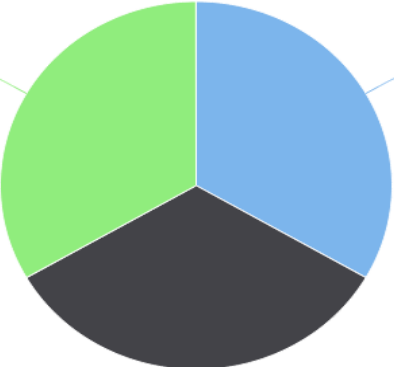
# Additional features

Choice

Select your favorite OS

Please select here your favorite OS.

Your answer: GNU/Linux



OS	Percentage
Windows	33.3 %
OSX	33.3 %
GNU/Linux	33.3 %

Options

OSX	<input type="radio"/>
GNU/Linux	<input checked="" type="radio"/>
Windows	<input type="radio"/>

Submit

- Although limited, the app support SCORM annotations and bookmarks.
- The download mode is available for folders as well.  
The user can download the entire folder content or select a subset of the files in the folder.
- AAI – Shibboleth authentication

# Code: GPL3 License

- Moodle Mobile App:  
<https://github.com/arael/MoodleMobileApp>
- Web Services:  
<https://github.com/arael/UniAppWS>
- Standard Authentication plugin:  
[https://github.com/arael/Moodle\\_MobileManual\\_auth\\_plugin](https://github.com/arael/Moodle_MobileManual_auth_plugin)
- AAI Shibboleth Authentication plugin:  
[https://github.com/arael/Moodle\\_MobileAAI\\_auth\\_plugin](https://github.com/arael/Moodle_MobileAAI_auth_plugin)



## Want to try the app?

- Showcase Moodle Sandbox : <https://showcase.icorsi.ch/>
- Showcase App on Google Play and iTunes



## Use cases

- Learning material centred
  - Availability of the course materials (HTML and files), interactivity on the go with the assignment activity
- Communication centred
  - Forums and back-channels
- Relevant course information centred
  - Grades, course calendar and participant list

**Thank you the attention**

Questions?

