eduMagnet.org
- Access and share any educational Video in one place -

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Outline

Introduction
  What is eduMagnet.org
  Project History
  Todays problems with Online Video
  Our Solution

How is it working?
  Access Services: Magnets
  Building a Magnet #1
  Building a Magnet #2

Archiving and sharing
  Allow Archiving of Media
  System Overview
  Public Playlists

Finally
  Team
  Questions
What is eduMagnet.org

- Media Player to
- Access, 
- Organize and
- Share Media
- for Educational Content

video lectures | video lessons | video experiments
Project History

- Students project at TFH-Berlin (now Beuth Hochschule für Technik)
- Mentored by Prof. Dr. Rüdiger Weis
- Project for OLPC
- Corporation with Uni Mannheim
- Idea to standardize the way online video is accessed

Demo
Todays problems with Online Video

Discovery Problem
- It's hard to find lectures

Aggregation Problem
- Every website is different

Connection Problem
- Internet connection needed
Our Solution

One-Stop Discovery

Modular Aggregation

Local media archive

One-Time Connection
How is it working?

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Access Services: Magnets

- Standardize access to services - Demo
- Keep the implementation as easy as possible
- Offer help to educational institutions
Building a Magnet #1

One directory with 3 files

- icon.png (max. 200x24)
- plugin_definition.py
- yxz_magnet.py

```python
# importing global section
import tv�.desktop_client.plugin_interface.plugin_info as tv�_plugin_info
import tv�.desktop_client.plugin_interface.plugin_dependency_info as tv�_plugin_dependency_info

# importing magnet source code
import helloworld_magnet

# definition section
plugin_definition = tv�_plugin_info.PluginInfo()
plugin_definition.name = "Helloworld"
plugin_definition.pluginclass = helloworld_magnet.HelloworldMagnet
plugin_definition.dependencies = [
    tv�_plugin_dependency_info.PluginDependencyInfo("PlayerPlugin", ["1.0.0"], "media source extension")
]
plugin_definition.event_names = ["play_media"]
```
Building a Magnet #2

```python
import datetime
import tvm.desktop_client.magnets.magnet as tvm_magnet
import tvm.model.media as tvm_media

class HelloWorldMagnet(tvm_magnet.Magnet):
    def _activate_magnet(self):
        pass

    def _get_by_query(self, query, callback, request_token):
        media_list = []

    # create a new Media with the unique location URI (required)
        media = tvm_media.Media(location = 'http://example.com/media/unique_id/4vuW6tQ0218')
    # id unique to the service
        media.service_id = '4vuW6tQ0218'
    # title of content
        media.title = 'Hello World'
    # timestamp of publication
        media.publication_time = datetime.datetime.now()
    # description
        media.comment = 'a Hello World Media'
    # remote location (URL to the youtube page of that video)
        media.location = 'YOUTUBE_TRACK_URL % media.service_id
    # html needed to embed the video in other web sites
        media.embed_html = ''
    # location needed to download the file (as needed by the downloader)
        media.file_location = 'http://example.com/media/4vuW6tQ0218.flv'
    # URL to a thumbnail image
        media.image = 'http://example.com/media/4vuW6tQ0218_thumb.jpg'

    # add media to a list of results
        media_list.append(media)
    # inform program about found media (needed so the progress bar will reach 100%)
        callback(self, media_list, request_token) # you may also return an empty media_list

    def _download_media(self, media, path):
        print "Could download the World. ;-)"
```
Archiving and sharing

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Allow Archiving of Media

- Cache downloaded media
- Allow organization in Playlists
System Overview
Public Playlists

- Open it up (XSPF)
- Browse playlists on the Web - *Demo*
- Community Website
- Subscription of playlists
Finally
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Team

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What do you think?
Thank you