

Introduction

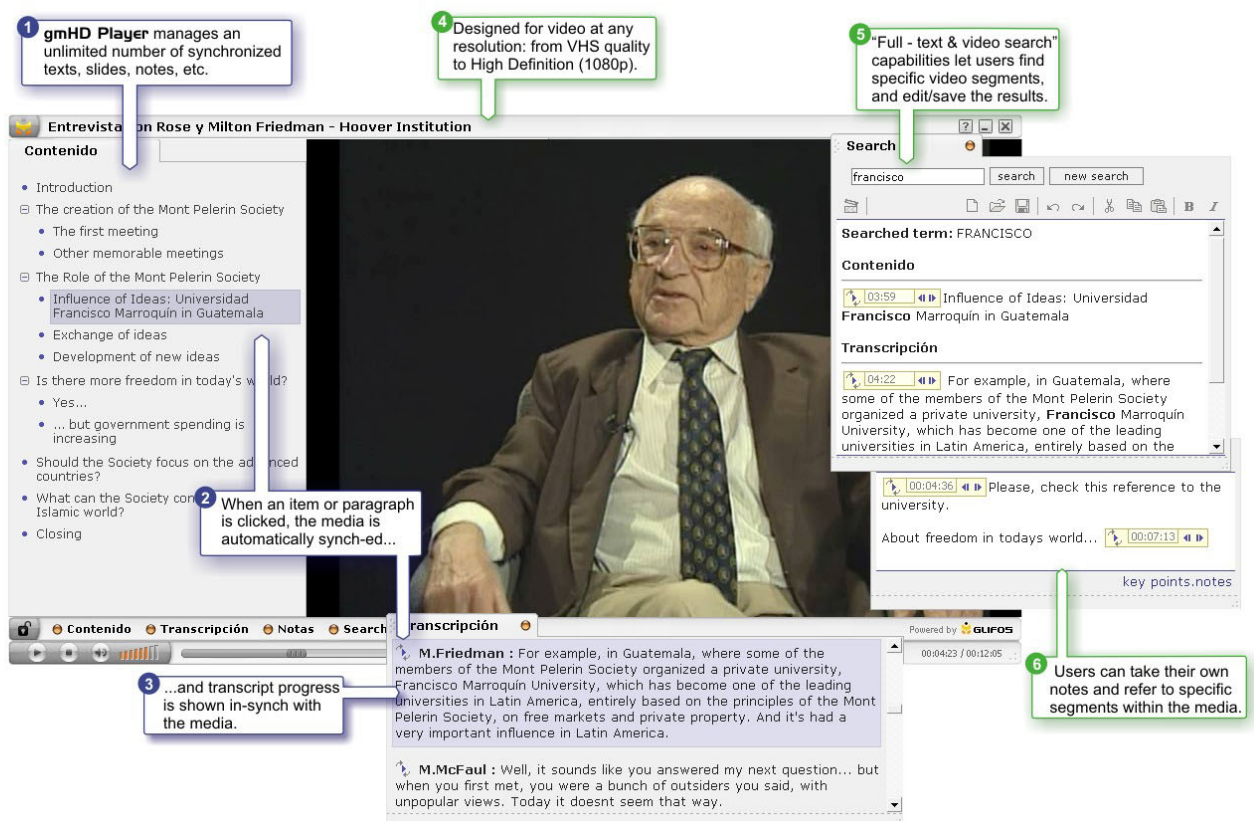
The **GLIFOS - media** toolset automates the production, cataloguing, digital preservation, access, and delivery of **rich-media** over diverse presentation devices (PCs, PDAs, smart phones), data transport platforms (Web, streaming media, CDs, DVDs), and operating systems (Windows, Mac OS, Linux).

Moreover, the use of an XML-based open specification — which is technology, platform and format independent —, guaranties content portability to platforms that will arise in the future (digital preservation)¹.

Rich-Media Content (gmPlayer, gmPocket, gmNotes)

A rich-media content must integrate video, text, and images to such an extent, that it should be able to transmit the richness of video (a manufacturing process, a doctor's bedside manner, the passion of a lecturer) without losing the functionality of a book: finding a word, studying a diagram in detail, making annotations, bookmarking specific sections, and extracting references.

gmPlayer synchronizes video and audio content with an unlimited number of tables of content, transcripts in one or more languages, references, slides, and student notes (**gmNotes**):



1 gmHD Player manages an unlimited number of synchronized texts, slides, notes, etc.

2 When an item or paragraph is clicked, the media is automatically synch-ed...

3 ...and transcript progress is shown in-synch with the media.

4 Designed for video at any resolution: from VHS quality to High Definition (1080p).

5 "Full - text & video search" capabilities let users find specific video segments, and edit/save the results.

6 Users can take their own notes and refer to specific segments within the media.

¹ Arias, Rodrigo; Matthias Reichenbach and Grete Pasch. 2005. [XML saves the day: Porting a Rich-Media Collection to a Mobile Platform in Three Weeks Flat](http://glifos.com/publicaciones/arias_reichenbach_pasch_mLearn2005.pdf) mLearn 2005 4th World conference on mLearning "Mobile technology: The future of learning in your hands". October 2005 Cape Town, South Africa. http://glifos.com/publicaciones/arias_reichenbach_pasch_mLearn2005.pdf

Production (gmCreator)

gmCreator automates the production of rich-media content, to the point where it is faster, less costly, and more effective to create a complete course using rich-media than it is to create the equivalent course materials in print form.

It is generally easier to videotape an excellent professor while he or she teaches a course, that it is to have this busy professor take time off to write a textbook or an academic paper.

At the same time, less effort is needed to explain and learn visual and auditory concepts, or manual procedures via rich-media than via elaborated textual descriptions.

Catalog and access (gmLibrary)

gmLibrary and **gmPlayer** mirror the traditional structure of library catalogs and indexes in order to allow access to any video fragment, at any time, from virtually anywhere in the campus.

High speed networks (10/100 Mbps or faster) have become common on today's university and corporate campuses. At such speeds, the quality of streamed video is equivalent to that of a VHS tape.

gmLibrary finds content by its bibliographic record, metadata description, and full-text from its tables of content and transcripts. And **gmPlayer** takes you directly to the part of the video that is related to a section, or even a word.

Unlike many closed courseware models, the digital library model makes it natural to reference and reuse content in part or as a whole.

Digital Preservation (GML, gmSkin)

The use of an XML-based open specification (**GML**), which is technology, platform, and format independent, guaranties content portability to diverse platforms in use today (PCs, PDAs, smart phones, Tablet PCs), as well as those that will arise in the future (digital preservation), thus maintaining the usefulness of the contents even if technology changes, and even if institutional image or preferences change.

With **gmSkin**, the same content can be easily repurposed for various data transport platforms (Web, streaming media, CDs, DVDs) and presentation devices.

Academic Applications

- Support and reference materials for traditional education.
 - At any time, a student (or a study group) can learn from the best professors at the University, repeating the difficult parts as often as needed, and at their own pace.
 - An excellent introduction to International Commerce can be used in several courses, such as economics, business, and international law.
- Distance Education.
 - The best teaching environment (with the exception of learning face to face with an excellent professor) is via rich media contents, which are accessible remotely (via Web, CDs, and DVDs), and at the student's own pace.
 - Professors can refer students to specific parts as an aid to solve questions remotely. They can even develop specific Q & A contents.
- Digital archive for events, lectures, and distinguished visitors.
 - A conference taught by a visiting lecturer, who may never return to the institution, becomes an invaluable academic and historic resource. In a similar way, the institution can record events that are relevant for its community, such as: graduation ceremonies, seminars, etc.
- Digital AV Preservation.
 - When copyright laws so allow, **GLIFOS - media** offers the ideal platform to preserve, catalog and access the institution's AV collections.

Configurations

It is possible to implement **GLIFOS - media** in incremental steps, according to each institution's needs:

- **Rich media content.** Acquire specific contents developed by other publishers for **gmPlayer** and **gmPocket**.
- **Basic configuration.** Develop rich media content for full featured presentation via **gmPlayer** and digital preservation via **gmSkin**.
- **Full configuration.** Systematize the production, cataloging, digital preservation, access, and content presentation via rich media (see diagram)

