



## The Physics Teaching Web Advisory – Use and Evolution

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Supported under NSF grant DUE-0226157



## We can all use help

- Everyone
  - New teachers
  - New-to-physics teachers
  - Experienced teachers
- With different aspects
  - Getting started
  - Expertise
  - Fresh perspectives



## What resources do we have?

- Printed material
- Web resources
- Our own experience
- Co-workers
- Each other
- Mentors
- Experts



## Physics Teaching Web Advisory PATHWAY

- A new type of digital library for physics teaching.
- Combining
  - CMU digital video library technology
  - KSU Physics Education expertise
  - Materials contributed by teachers



## More than a collection

- Builds on a unique collaboration
  - Digital video libraries
  - Advanced distance learning & collaboration technologies
  - Nationally known experts in physics pedagogy and high quality content.
- Continuously improving assistance and expertise for teachers of all levels



## PATHWAY Components

- Synthetic Interviews
- Digital Video Data Base
- Connections to
  - National Science Education Standards
  - Research in Physics Education
  - Helpful Web sites
  - National Science Digital Library



### Synthetic Interviews (1 of 3)

- Have been created for
  - medical advice
  - “conversing with entertainment, sports and historical figures.”
- PATHWAY builds on these experiences.

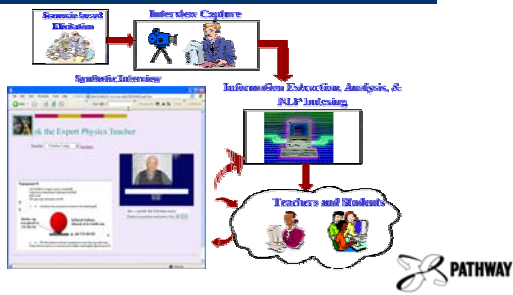


### Synthetic Interviews (2 of 3)

- Interface very similar to *conversing* with an expert
- Video and other information stored in a database
- Selected & presented when a teacher asks a question.



### Synthetic Interviews (3 of 3)



Question:



### To start ...



Please select who you would like to answer your question:

Question:

Quick Questions:

History:



### Choose an expert



Please select who you would like to answer your question:

Question:

Quick Questions:

History:



## Enter your question



Please select who you would like to answer your question:  
[Paul Hewitt]

Question: [What math background is needed to study kinematics?]

[Ask]

Quick Questions:

[Acceleration...]

History:

[Select one...]



## Or choose from Quick Questions



Please select who you would like to answer your question:  
[Paul Hewitt]

Question: [What math background is needed to study kinematics?]

[Ask]

Quick Questions:

[Acceleration...]

[Selected one...]

[Teaching kinematics...]

[Constant force...]

[Acceleration...]



## Or select from previous questions



Please select who you would like to answer your question:  
[Paul Hewitt]

Question: [What math background is needed to study kinematics?]

[Ask]

Quick Questions:

[Acceleration...]

History:

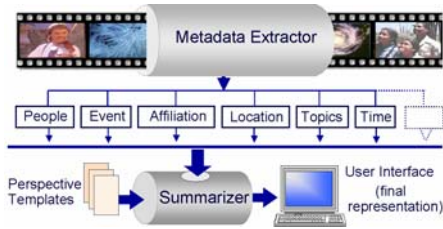
[Selected one...]

[Selected one...]

[When do you teach vectors?]

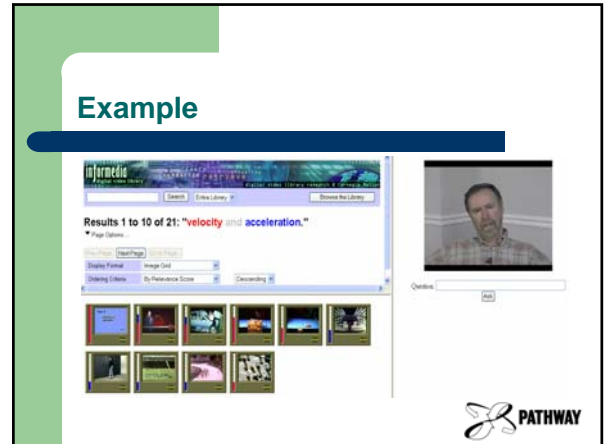
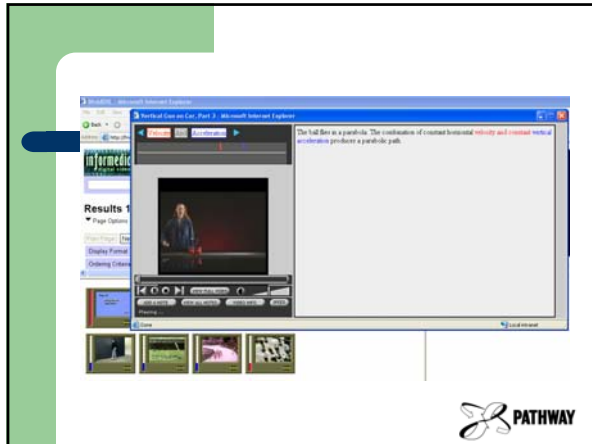


## informedia digital library



- Automatically extracts metadata from video and audio.
- Information used to create a database of video information
- Can be searched in a variety of ways.





## You can help

- Suggest questions to ask the experienced teachers
  - Kinematics and Dynamics
  - Other topics later
- Try the system
  - Available now at [www.physicspathway.org](http://www.physicspathway.org)
- Give us feedback

## Project Website

<http://www.physicspathway.org>

**Physics Teaching Web Advisory**

[>> Ask Questions about Physics Teaching](#)

\* Partial support for this work is provided by the National Science Foundation's National Science, Technology, Engineering, and Mathematics Education Digital Library Program under grant DUE-0228219.

Best View: 1024x768, IE 5.0 or better | Last Updated: 20091218 | Created and Maintained by Chih-yu Chao |

## Questions or Comments?

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THANK YOU!