A PATHWAY to Class Preparation

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Just-in-Time Teaching

- Obtains feedback from pre-class web assignments
- Adjusts classroom lessons
- Gives rapid response to questions and problems
- Addresses student needs
- Encourages students to take more control

But how to make the adjustments?

- Experience
- Co-workers
- An expert

Physics Teaching Web Advisory PATHWAY

- Proof-of-concept demonstration of 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 and students 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)

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

To start ...

Choose an expert
- 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
- Give us feedback

Questions or Comments?

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Example

Project Website

http://www.physicspathway.org

Physics Teaching Web Advisory

Ask Questions about Physics Teaching