

Web Conference Technology for Telerehab Project

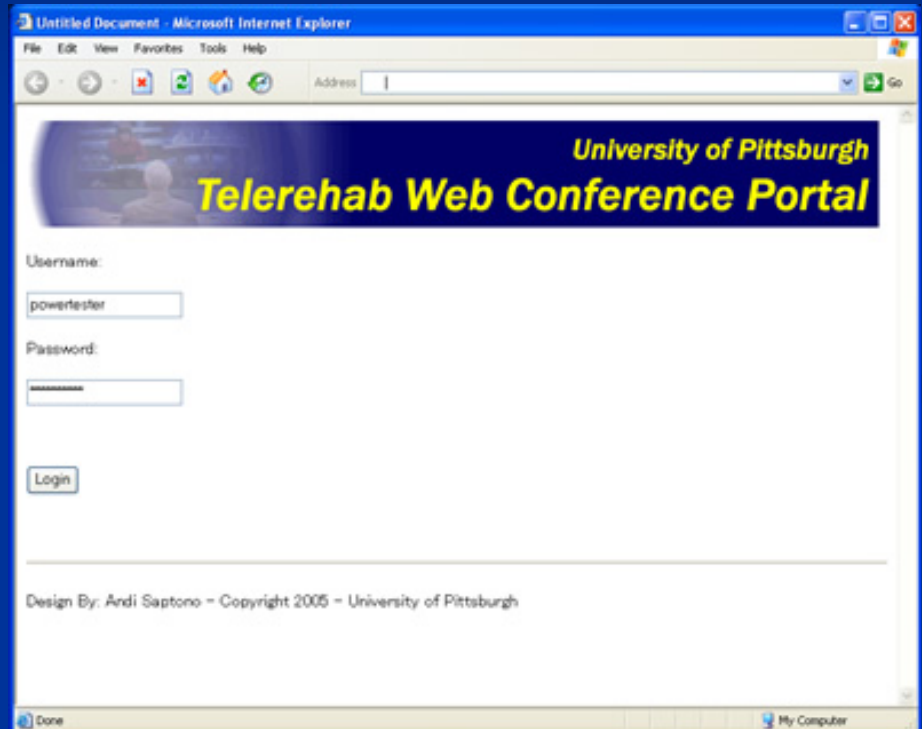
Andi Saptono & Bambang Parmanto

Key points for Pitt TeleRehab Web conferencing tech

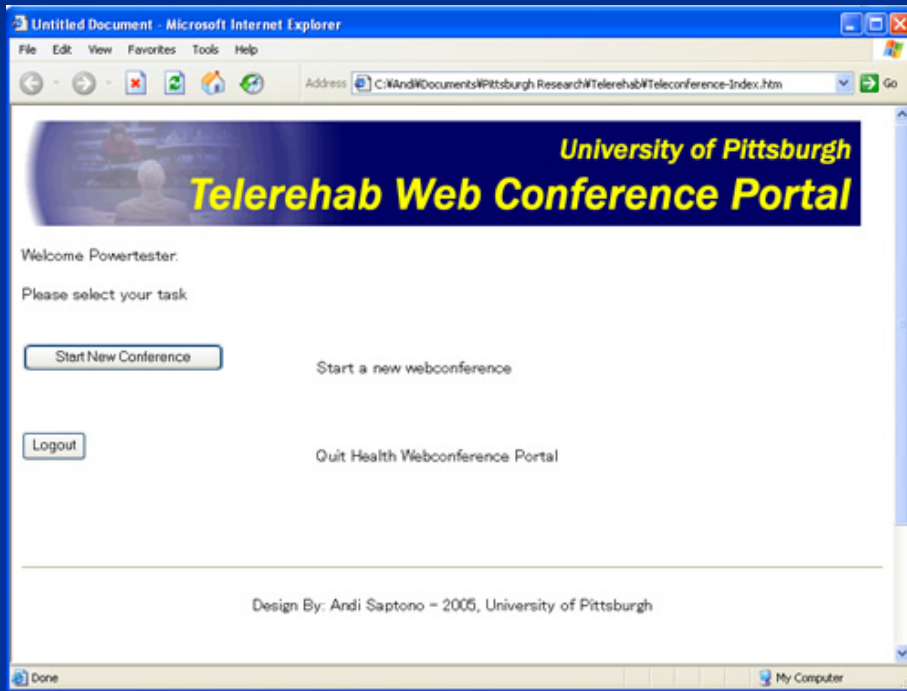
- Desktop-based: broader use and mobility
- Browser-based: open platform, accessible from anywhere
- Software-based and hardware independent: giving flexibility to use any hardware suitable for different sites
- Should be based on open off-the-shelf technology (non-proprietary)
- Can be integrated to the Telerehab Portal

A Vision of Telerehab Web Conference Portal

- Start with a login page
- User input username and password to login to portal



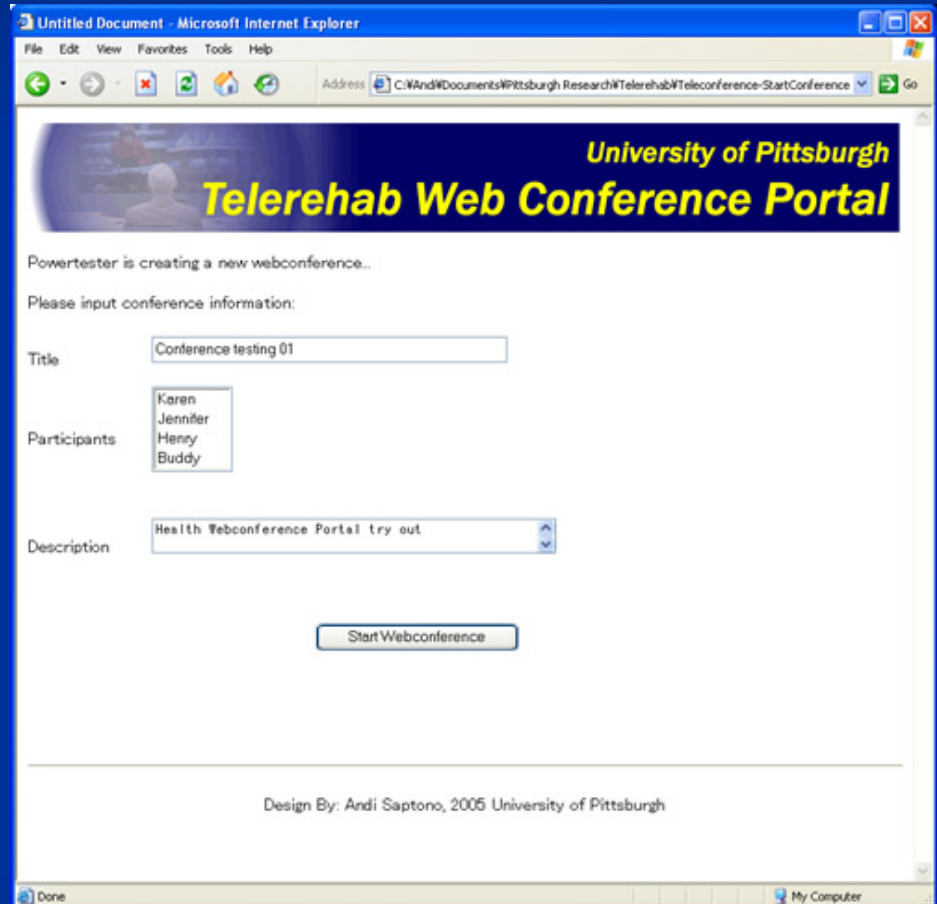
A Vision of Telerehab Web Conference Portal



- A simple example of index page
- Will include ability to:
 - Start a web conference session and invite people to join in
 - Share document
 - Start offline discussion
 - Querying information from database

A Vision of Telerehab Web Conference Portal

- Example of starting a web conference
- User provide important information about the meeting
- User invite people to attend the meeting online



The screenshot shows a Microsoft Internet Explorer browser window displaying a web form for starting a web conference. The browser's address bar shows the local file path: C:\Andi\Documents\WPittsburgh_Research\Telerehab\Teleconference-StartConference. The page features a header for the University of Pittsburgh Telerehab Web Conference Portal. The main content area contains a message: "Powertester is creating a new webconference.. Please input conference information:". Below this, there are four input fields: "Title" with the value "Conference testing 01", "Participants" with a list of names (Karen, Jennifer, Henry, Buddy), "Description" with the value "Health Webconference Portal try out", and a "Start Webconference" button. The footer of the page reads "Design By: Andi Saptono, 2005 University of Pittsburgh".

University of Pittsburgh
Telerehab Web Conference Portal

Powertester is creating a new webconference..

Please input conference information:

Title: Conference testing 01

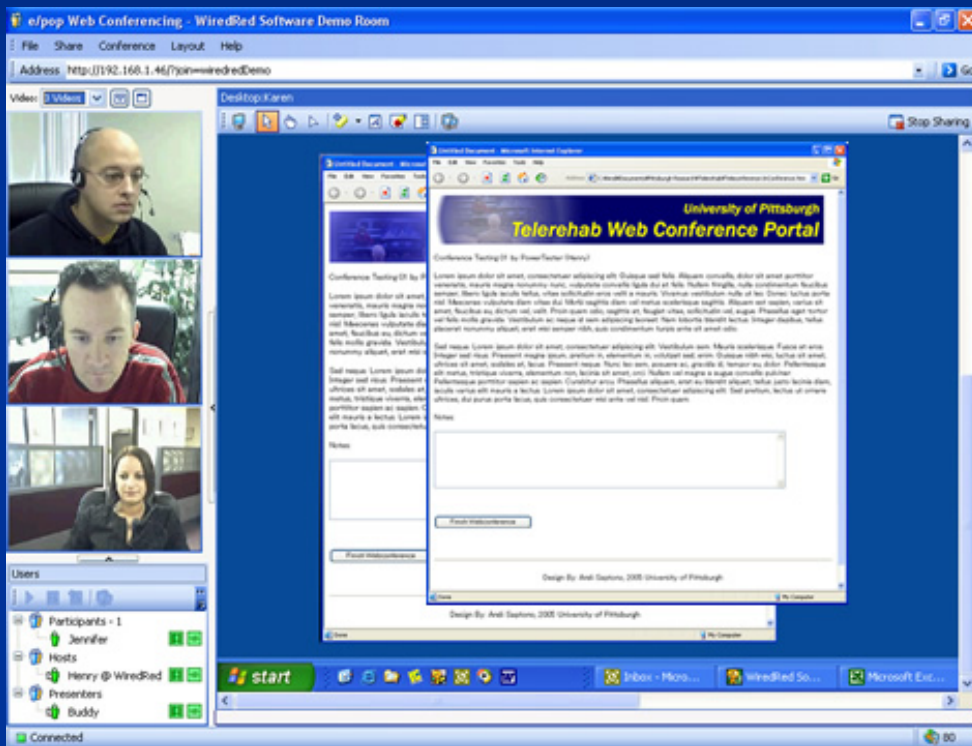
Participants: Karen, Jennifer, Henry, Buddy

Description: Health Webconference Portal try out

Start Webconference

Design By: Andi Saptono, 2005 University of Pittsburgh

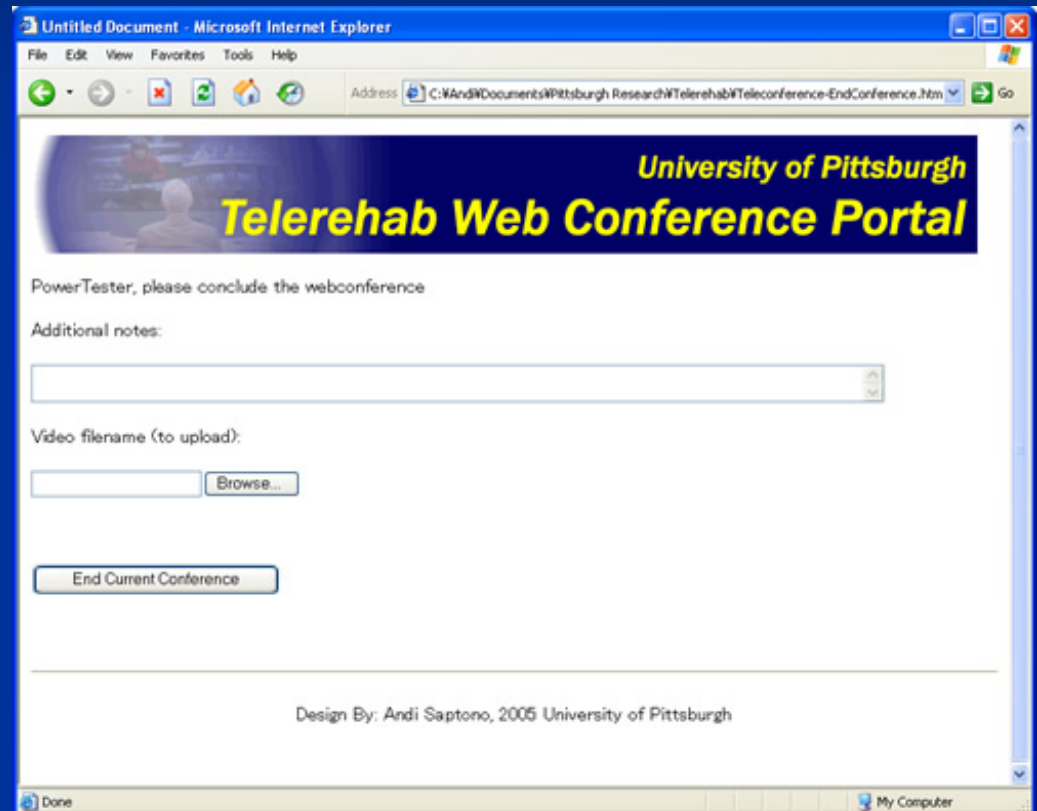
A Vision of Telerehab Web Conference Portal



- An example of a web conference session
- User can have a multi-point conference, share document, presentation, and even share control of desktop
- This example use WiredRed e/OP application

A Vision of Telerehab Web Conference Portal

- Concluding a web conference session, session starter save the video and upload it to server for future reference
- May provide additional notes (or any other information needed)



What do we need?

- A server to host the web conference application
- Web conference application, for example:
 - e/pop by [WiredRed](#)
 - WebDemo by [Linktivity](#)
 - MeetingServer by [DataConnection](#)
- Web conference hardware equipments: web camera, microphone, etc.

Some facts about e/Pop

- Microsoft platform
- Have API and SDK that can be integrated to Visual Basic, Java, and C#
- Need IIS
- Don't know whether it can save the stream into movie file or not

Some facts about WebDemo

- Java based
- Need IIS
- Have some service that can be integrated to other application, not too clear on how
- Clearly stated that it can save video stream into file

Feature Matrix and Comparison

	WebDemo by Linktivity	ePop by WiredRed	MeetingServer by DataConnection	Polycom
Multipoint Webconferencing	Available	Available	Unknown, seems to be able to	Depending on the device
Saving Video and Audio Stream	Yes	Unknown	Yes	No
Application sharing (including presentation, files, etc)	Yes	Yes	Yes	No
Technology	Java-based	ActiveX, Windows based	Java-based	Proprietary
Hardware needed	Independent	Independent	Independent	Device with the same protocols
Integration with other software	Using Java module	Using ActiveX module	Using Java module	No integration

Web conference equipment

- Web camera and microphone
- Broadband internet connection
- For client: web browser
- Web server