



Engaging Users Through Usability Testing

Fagdéba “Bako” Bakoyéma & Christy Groves

Introduction

- ❖ Middle Tennessee State University, Murfreesboro
- ❖ Walker Library
- ❖ Fagdeba Bakoyema, Assistant Professor and Web Services Librarian
- ❖ Christy Groves, Assistant Professor and User Services Coordinator
- ❖ Content Management System at MTSU
- ❖ Previous experiences with usability testing



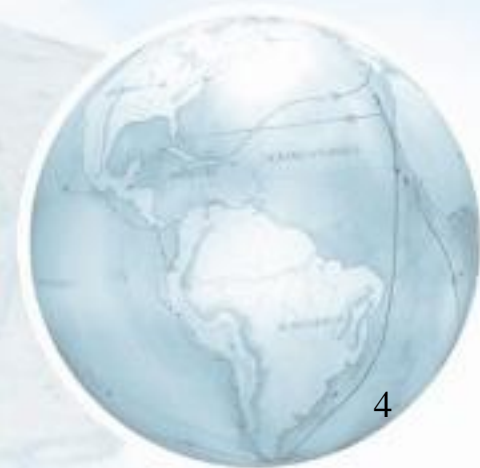
Background

- ❖ Library resources, collections, and services directly impact learning
- ❖ Walker Library serves as central research hub of MTSU
- ❖ Library as “place” has expanded into a virtual environment
- ❖ Myriad of online choices
- ❖ Users often may bypass library websites
- ❖ Navigation problems
- ❖ Google effect



What is Usability Testing?

- ❖ Jakob Nielsen – many consider to be father of “usability testing”
- ❖ *Handbook of Usability Testing:* (Rubin, 1994)
 - ❖ Website utility goals and objectives are typically defined by measurable terms
 - ❖ A process that employs participants representative of target population
 - ❖ Evaluates the degree to which specific usability criteria are met
 - ❖ Capture these attributes through usability testing:
 - ❖ Usefulness
 - ❖ Ease of use
 - ❖ Learnability
 - ❖ Likability



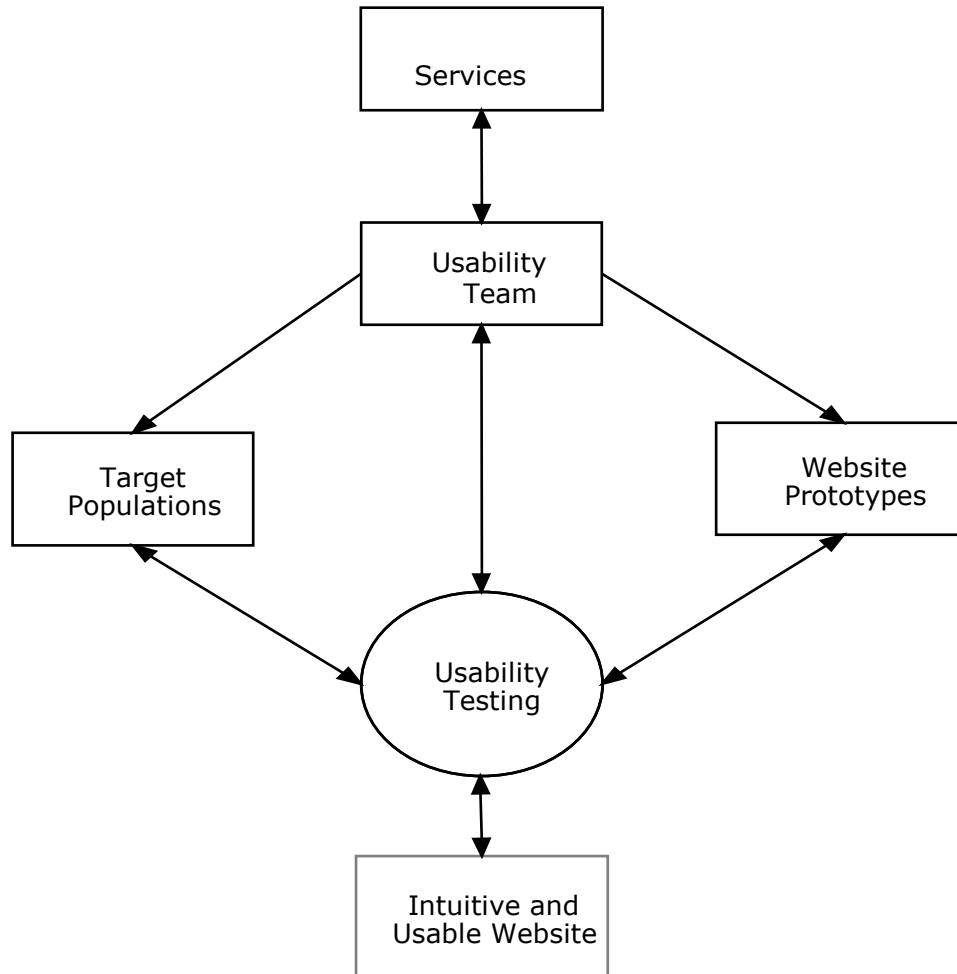
Why Conduct Usability Testing?

- ❖ Traditionally, usability testing has been time consuming
- ❖ Until recently, somewhat difficult to execute
- ❖ New software developments have made usability testing easier
- ❖ Today's usability testing software is also not very expensive
- ❖ Great way to learn how our users are navigating our websites
- ❖ Usability testing is an ongoing process as libraries, websites, and research tools evolve



Usability Testing Flow Chart

Walker Library Website Design and Usability Process



Current Walker Library website

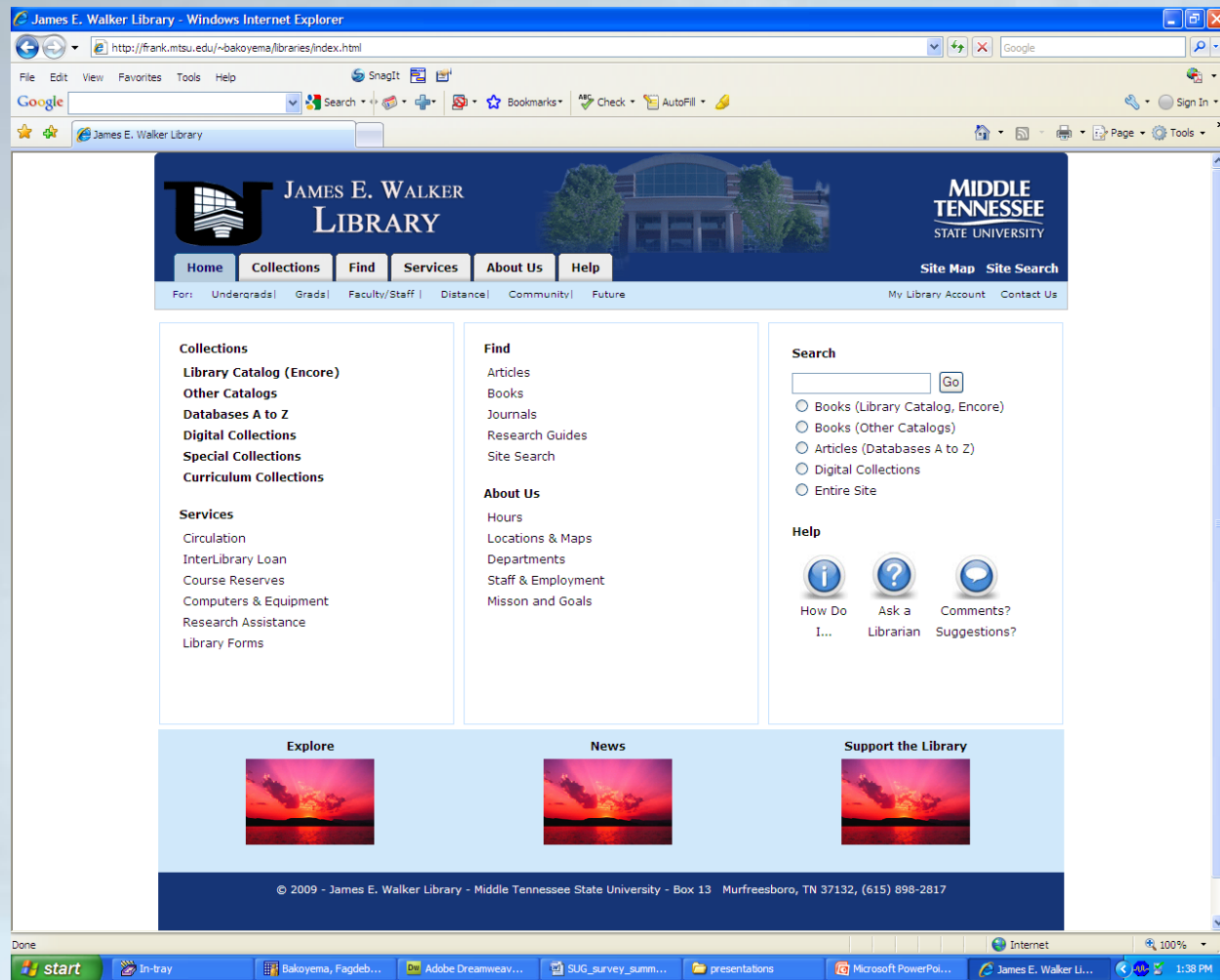


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Drop Down Menus



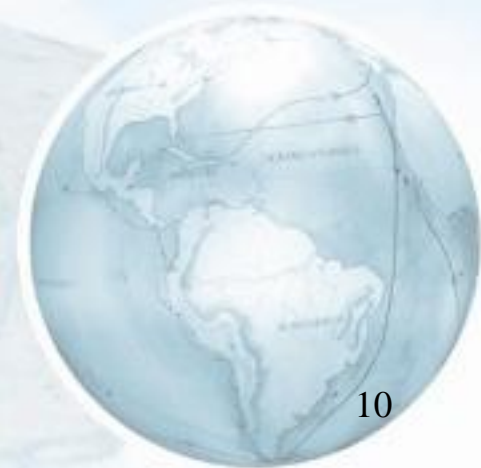
New Walker Library website Prototype



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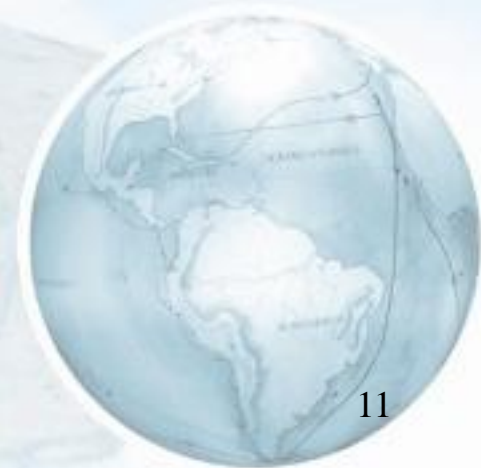
Morae Overview

- ❖ At least two computers, networked are needed
- ❖ One can be a laptop
- ❖ 1. Set up sessions with Morae Recorder
 - ❖ Define the study
 - ❖ Tasks and markers
 - ❖ Surveys
 - ❖ Video and Audio sources
- ❖ 2. View and Log marker with Morae Observer
 - ❖ Recorder captures session data
 - ❖ Observers can log the sessions
- ❖ 3. Analyze studies with Morae Manager
 - ❖ Search for trends
 - ❖ Analyze captured data
 - ❖ Work with survey results



The Walker Library PIE Lab

- ❖ PIE = Patron Information Experience
- ❖ Dedicated space specifically for usability testing
- ❖ Quiet space
- ❖ User Privacy
- ❖ Door Sign and participants recruitment advertisement



Morae hardware requirements

- ❖ Windows XP or Vista
- ❖ 2.0 GHz Pentium M, 3.0 GHz Pentium 4, or equivalent processor
- ❖ 1 GB RAM or more
- ❖ Dedicated video card with at least 64 MB of dedicated video memory
- ❖ PCI Express graphics
- ❖ DirectX version 9.0 or later
- ❖ Windows compatible sound card, microphone, and speakers
- ❖ 10-15 MB disk space per minute for recording
- ❖ Networked computer with 10 Mbps



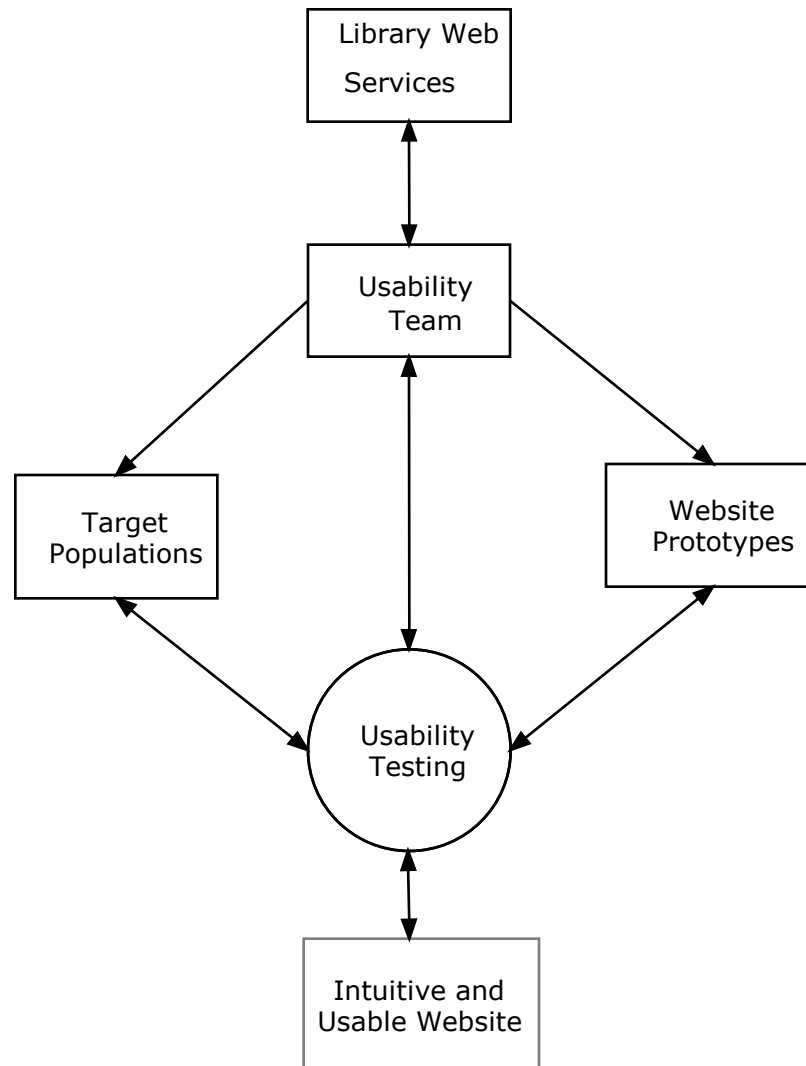
MORAE

A closer look...



Part 2: Morae Software description and Usability Study

Walker Library Website Design and Usability Process



Part 2: Morae Software Description and Usability Study

Usability Lab

- ❖ Setting up the lab
- ❖ Training for the use of Morae
- ❖ Creating prototypes for a new architecture
- ❖ Designing the usability test process
- ❖ Recruiting participants (Target population)
- ❖ Testing both prototypes & current website



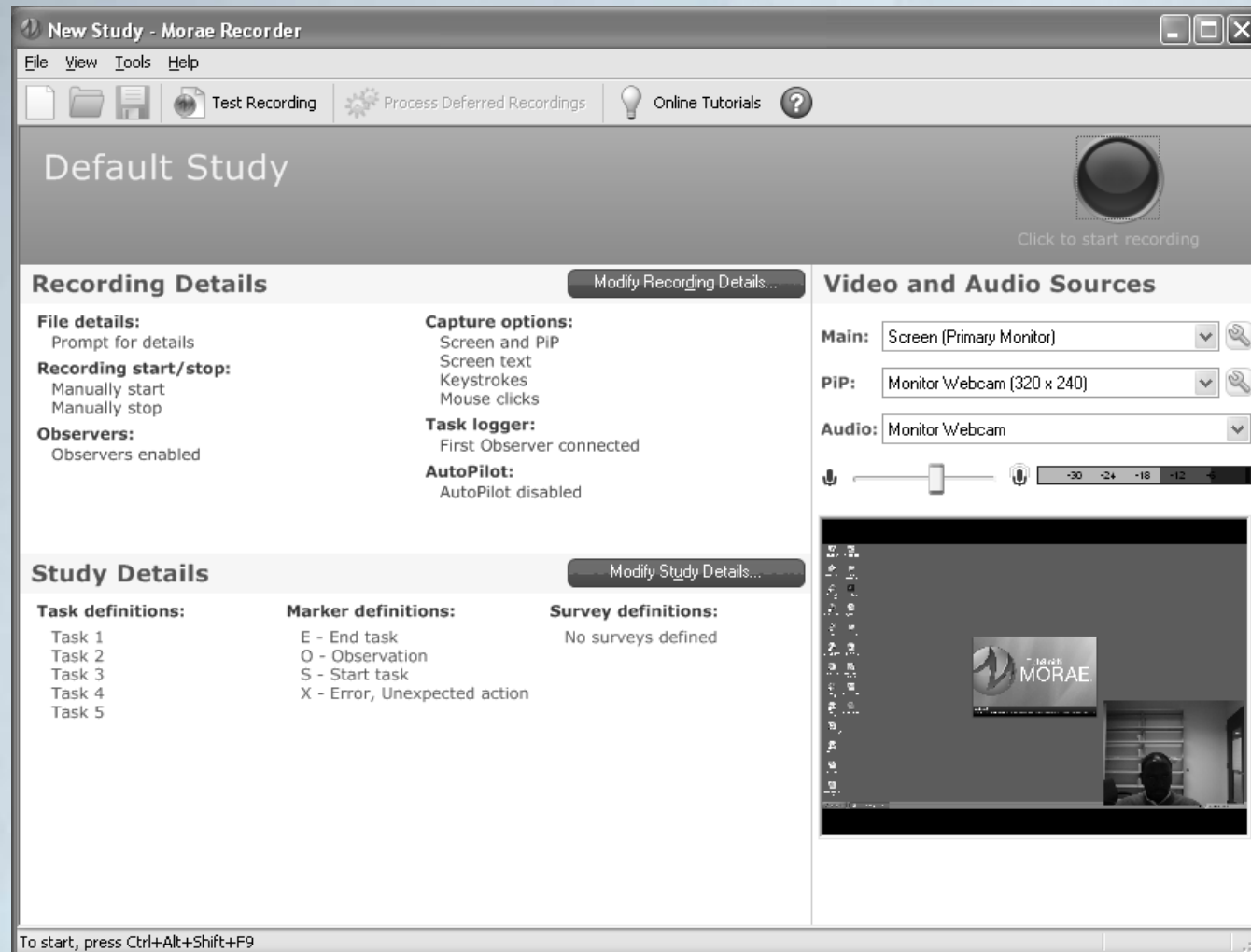
Morae Components: description & functionality

Recorder



Morae Components: description & functionality

Recorder



Morae Components: description & functionality

Recorder

Progress: 0/20 Exit Session

INTRODUCTION

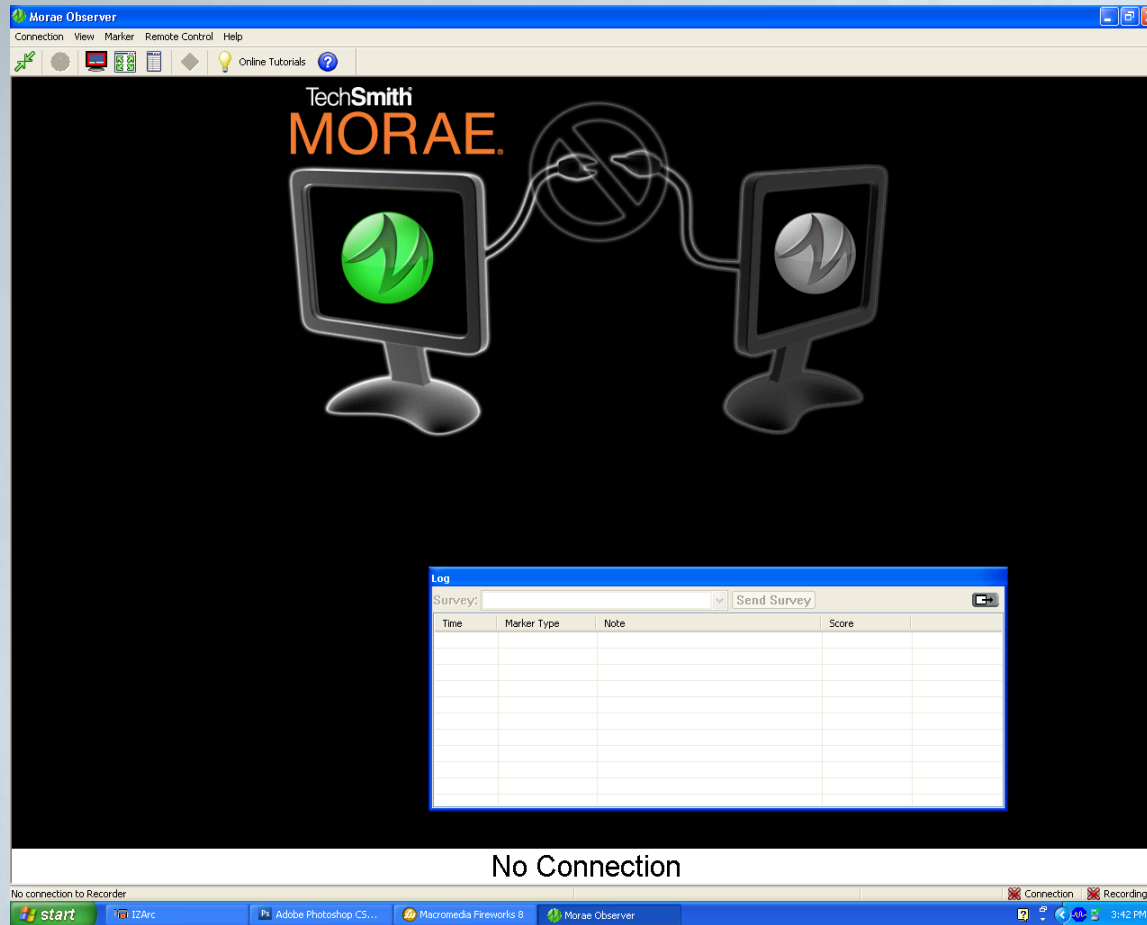
Thank you for participating in this study. We are evaluating the MTSU Walker Library Website, not individual abilities. We are using, Morae, a usability software with recording capability, observational input and data analysis. You will be required to input Demographic information, perform numerous built-in tasks and complete a satisfaction survey at the end. The recording will be used to analyze the data for the purposes of this study. Upon completion of this study, the videos and the data will be destroyed. You will first fill-out a profile, followed by task performance. Your test score will be included in the data. However, ALL data will be de-identified. To

Start



Morae Components: description & functionality

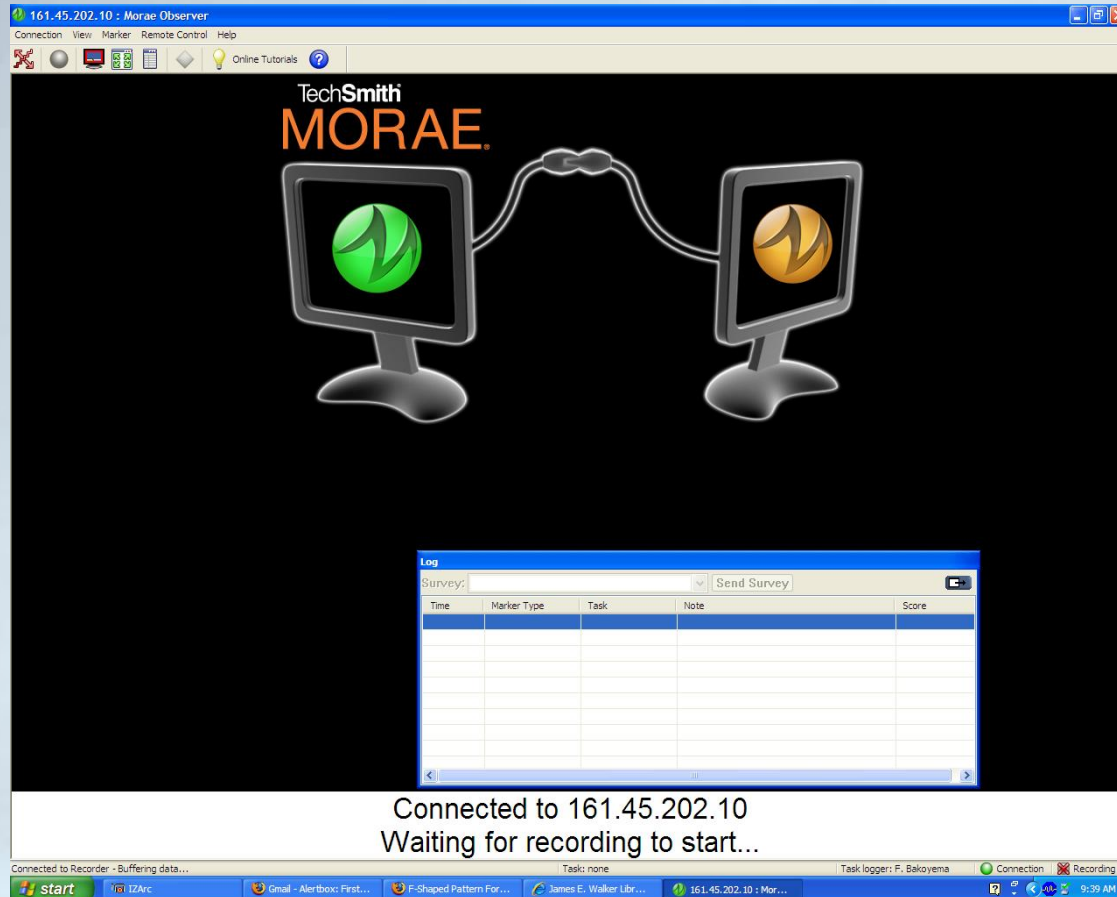
The Observer



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Morae Components: description & functionality

Recorder & Observer

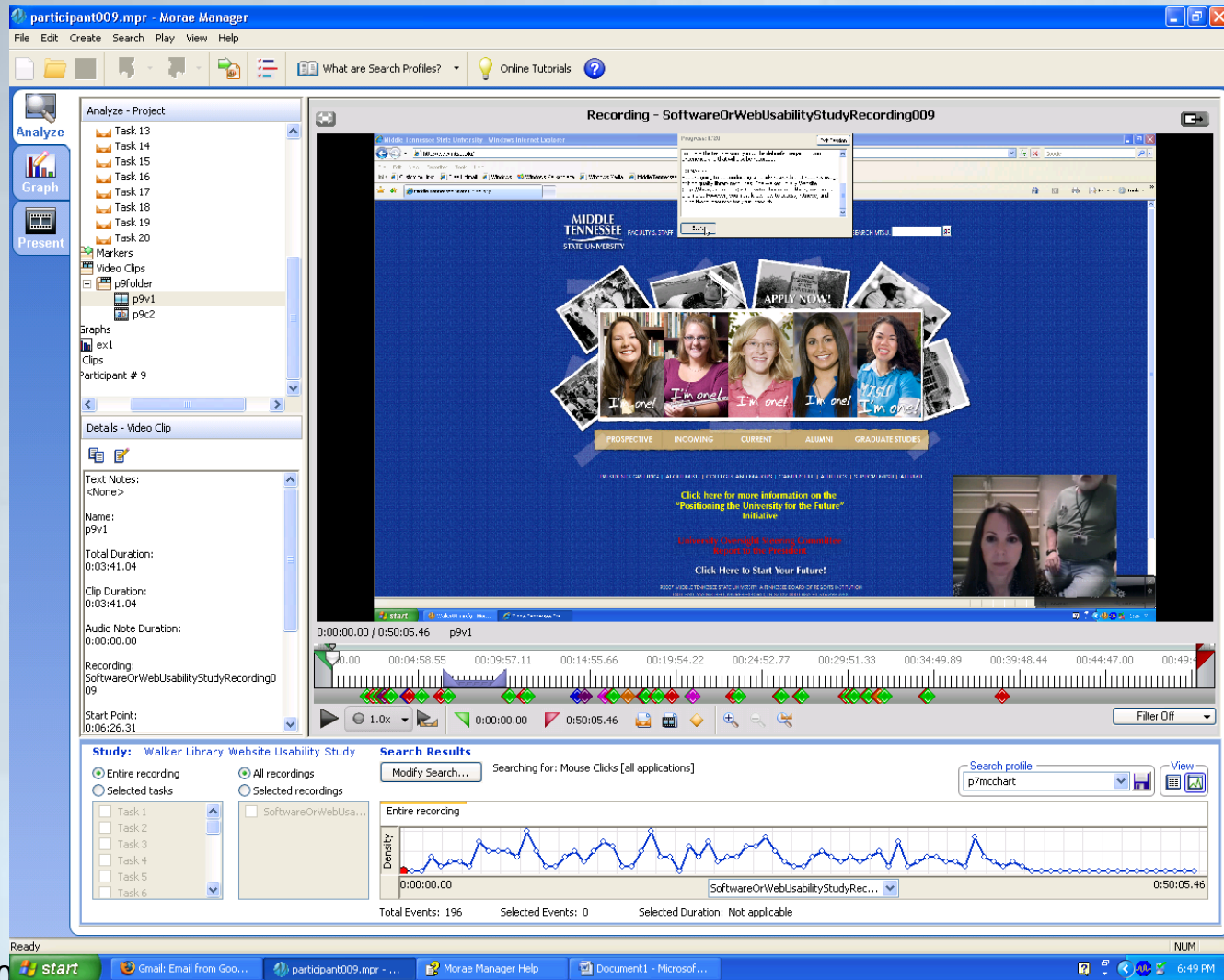


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Morae components: description & functionality

Manager



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Morae components: description & functionality

Manager

The screenshot displays the Morae Manager application window. The title bar reads 'participant008.mpr - Morae Manager'. The menu bar includes File, Edit, Create, Search, Play, View, and Help. The toolbar contains icons for file operations and a dropdown menu for 'How do I navigate the Timeline?'. The left sidebar has buttons for 'Analyze', 'Graph', and 'Present'. The main workspace is divided into several panels:

- Analyze - Project:** A tree view showing the project structure for 'Walker Library Website Usability Stud', including 'participant008', 'Tasks', 'Markers', 'Video Clips', 'anfolder', 'ann1', 'Graphs', and 'Title Clips'. A tooltip indicates 'Contains 0 Title clip(s) and 0 Title clip folder(s)'.
- Details - Video Clip:** A panel for 'ann1' showing 'Text Notes: <None>', 'Name: ann1', 'Total Duration: 0:00:19.51', 'Clip Duration: 0:00:19.51', 'Audio Note Duration: 0:00:00.00', 'Recording: participant008', 'Start Point: 0:03:22.25', and 'End Point: 0:00:00.00'.
- Recording - participant008:** A large video player showing a recording of a website. The website is the Middle Tennessee State University homepage, featuring a blue background with photos of students and the text 'MIDDLE TENNESSEE STATE UNIVERSITY', 'APPLY NOW!', and 'Click here for more information on the "Positioning the University for the Future" Initiative'. A small video inset in the bottom right corner shows a person's face. Below the video is a timeline with a playhead at 0:00:00.00 and a duration of 0:26:47.37.
- Study:** A section for 'Walker Library Website Usability Study' with radio buttons for 'Entire recording' and 'Selected tasks', and checkboxes for 'Task 1' through 'Task 6'. A 'partipant008' checkbox is also present.
- Search Results:** A section with a 'Modify Search...' button and a 'Click the Search button to select search criteria' instruction. It includes a 'Search profile' dropdown set to 'Custom search' and a 'View' button. Below this is a 'Density' graph showing a single data point at 0:00:00.00. At the bottom, it shows 'Total Events: 0', 'Selected Events: 0', and 'Selected Duration: Not applicable'.

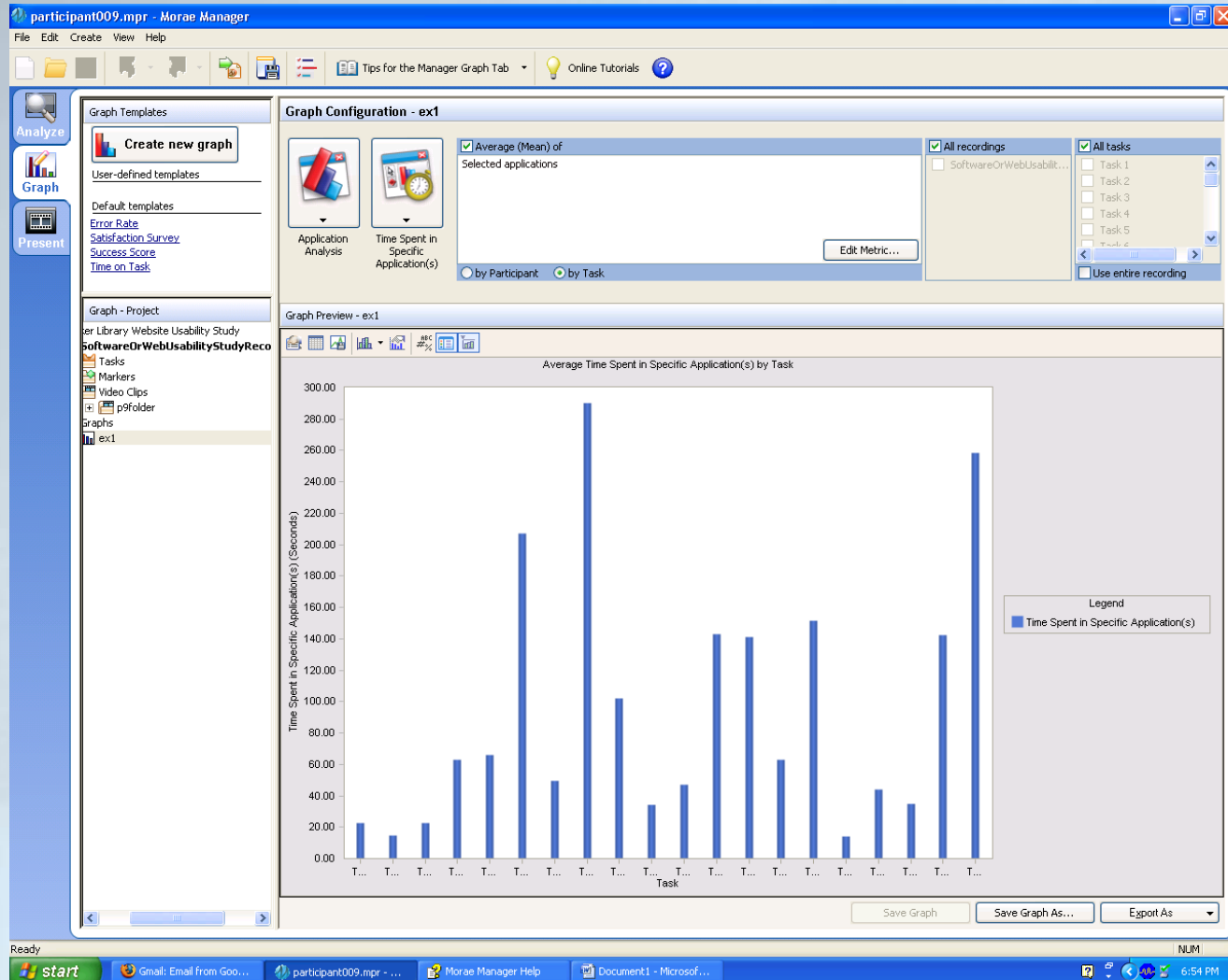
The bottom status bar shows 'Ready', a 'start' button, the file name 'participant008.mpr - M...', and the system clock '5:33 PM'.

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Morae components: description & functionality

Manager

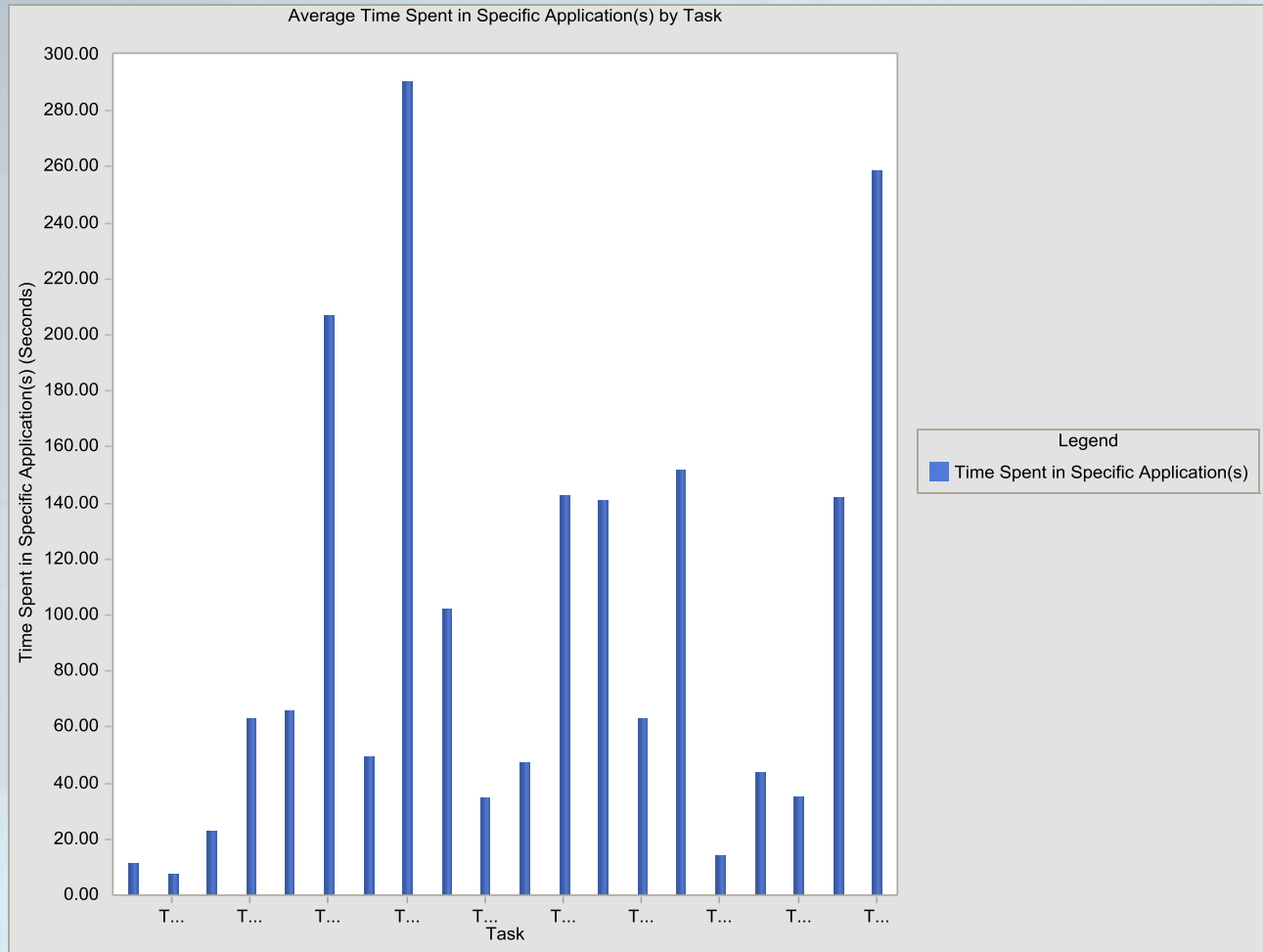


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Morae components: description & functionality

Manager



Morae components: description & functionality

Manager

The screenshot displays the Morae Manager application window titled "participant009.mpr - Morae Manager". The interface includes a menu bar (File, Edit, Create, Play, View, Help), a toolbar, and a sidebar with icons for Analyze, Graph, and Present. The main workspace is divided into several panels:

- Project Panel:** Lists project elements such as "End task", "Start task", "Video Clips", "p9folder", "p9v1", "gwen", "Gwen2", "p9c2", "barry_test", "Tasks", "Markers", and "Video Clips".
- Clip Bin:** A table listing clips with columns for Clip Name, Recording, Duration, Folder, Study, and Text Note. It includes sections for Video Clips, Title Clips, and Graphs.
- Details - Video Clip:** Provides information for a selected clip, including Text Notes, Name (Gwen2), Total Duration (0:01:09.66), Clip Duration (0:01:09.66), Audio Note Duration (0:00:00.00), Recording (SoftwareOrWebUsabilityStudyRecording009), and Start Point.
- Recording Panel:** A large black area for video recording, with a timeline at the bottom showing a scale from 0:00:00.00 to 0:50:05.46. The timeline includes a playhead and various colored markers.
- Storyboard:** A sequence of thumbnails representing the presentation slides, including "p9v1", "ex1", "p9c2", and "p9v1".

The Windows taskbar at the bottom shows the date 10/27/2009, the Start button, and open files including "usabclips.doc [Compa..." and "participant009.mpr - ...". The system clock indicates 5:50 PM.

10/27/2009

Bibliography

- Cobus, L., Dent, V.F. & Ondrusek, A. (2004). How twenty-eight users helped redesign an academic library website. *Reference & User Services Quarterly*, 44(3), 232-46.
- Guenther, K. (2000). Designing and managing your digital library. *Computers in Libraries*, 20(3), 34.
- Kuniavsky, M. (2003). *Observing the User Experience: A Practitioner's Guide to User Research*. San Francisco, CA: Morgan Kaufmann Publishers.
- Mathews, B. (2009). Web design matters. *Library Journal*, 134(3), 24-25.
- Nielsen, J. (2000). *Designing Web Usability*. Indianapolis, IN: New Riders.
- Norlin, E. & Winters, C.M. (2002). *Usability Testing for Library Web Sites: A Hands-on Guide*. Chicago: American Library Association.
- Rubin, J. (1994). *Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests*. New York: Wiley.
- Schryer Norris, S. (2002). Real simple? Exploring online user satisfaction in Michigan. *Library Journal*, 131(18), 34-6.
- Wrubel, L. S. (2007). Improving access to electronic resources (er) through usability testing. *Collection Management*, 32(1/2), 225-34.



Further Questions? Contact Us!

Fagdeba Bakoyema, Web Services Librarian
615-898-5782, bakoyema@mtsu.edu

Christy Groves, User Services Coordinator
615-898-2652, cgroves@mtsu.edu

