

如何搭建用户体验实验室? How to Build a Usability Lab?

Lecture 11

何吉波 博士

美国Wichita State University大学助理教授;

优异搜索用户体验咨询公司;

仁和投资公司投资人

hejibo@ueseonet.net

纲要 outline

2

- 如何组建固定用户体验实验室？
- 如何组建移动用户体验实验室？
- 如何组建用户体验咨询公司？

用户体验常见需求

3

- could test a prototype on iPad
- could record the screen of the iPad
- could record picture and sound of the test subjects
- could simultaneously conduct the test in one room and watch it in another room
- could test on location, ie independent of things like Wi-Fi network or one-way mirrors (actually we wanted a portable usability lab)

如何组建固定用户体验实验室？

4



预算Budget

5

人事 Personnel

6

- 视觉设计师
- 交互设计师
- 用户体验研究员
- 前端工程师
- 后端工程师
- 项目经理

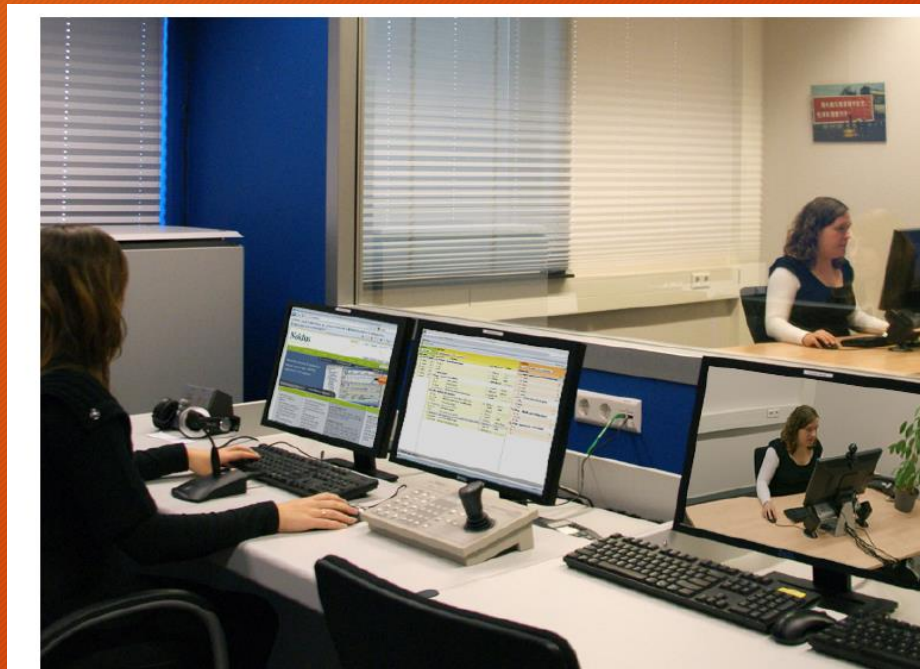
人事 Personnel

7

- *Test leader (or facilitator, or moderator)]*
 - the person managing the tests, creating the study design, communicating with the participant, and writing the report.
- *Logger*
 - the person operating the usability test tool and logging events during the test.
- *Lab technician*
 - the person installing hardware and software, and the person in charge of maintenance.
- *Participant (or evaluator)*
 - the person interacting with the product, application, or website.
- *Client*
 - the person asking for the usability test.
- *Additional loggers*
 - persons observing the test and entering data with the usability test tool (for example a UI designer, project leader, or product manager).

人事 Personnel

8

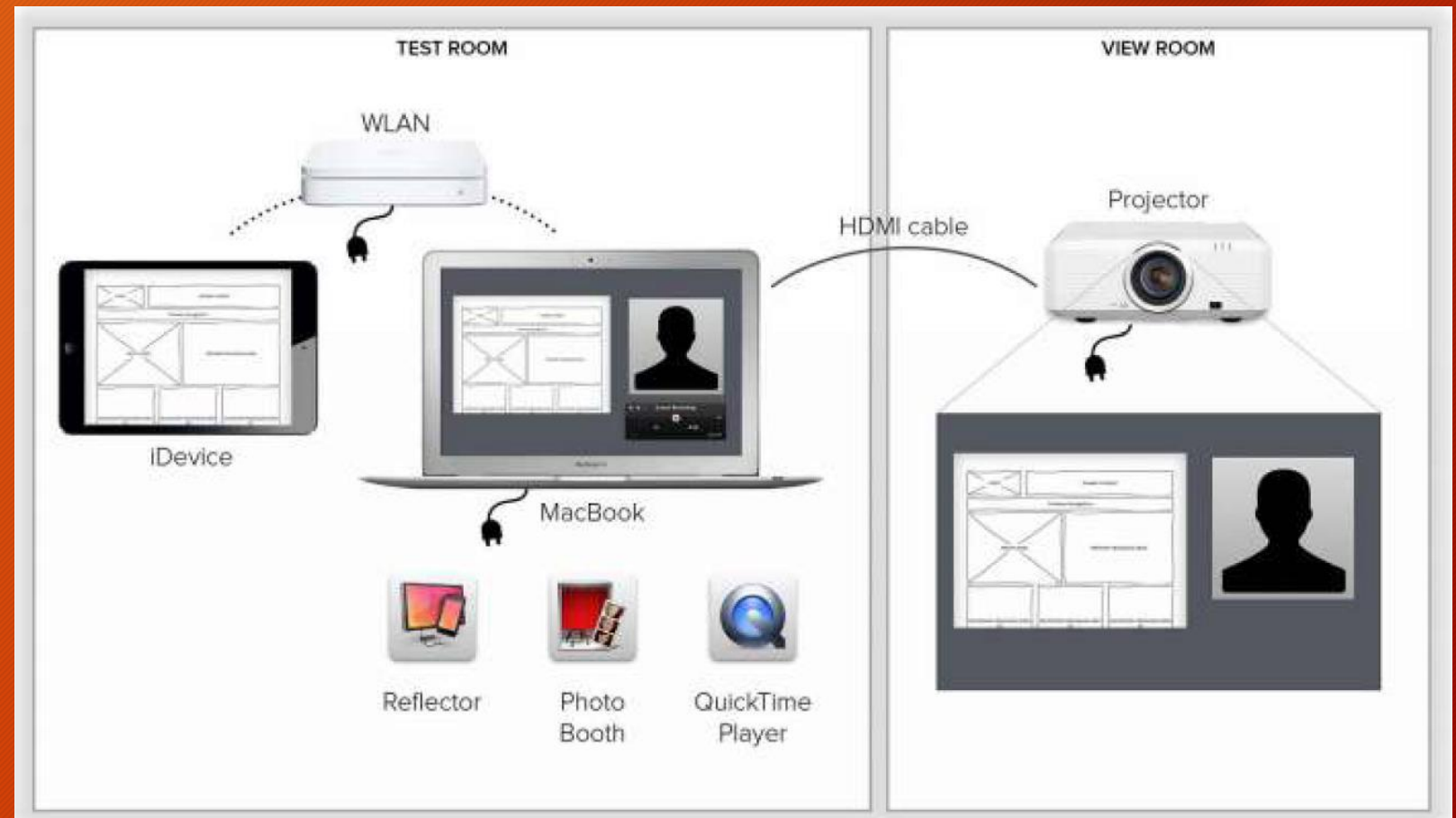


Test leader and logger(s) observe the test through the one-way mirror, on secondary monitors (copying the test computer's display) or on a large screen or projected image.

场地Space

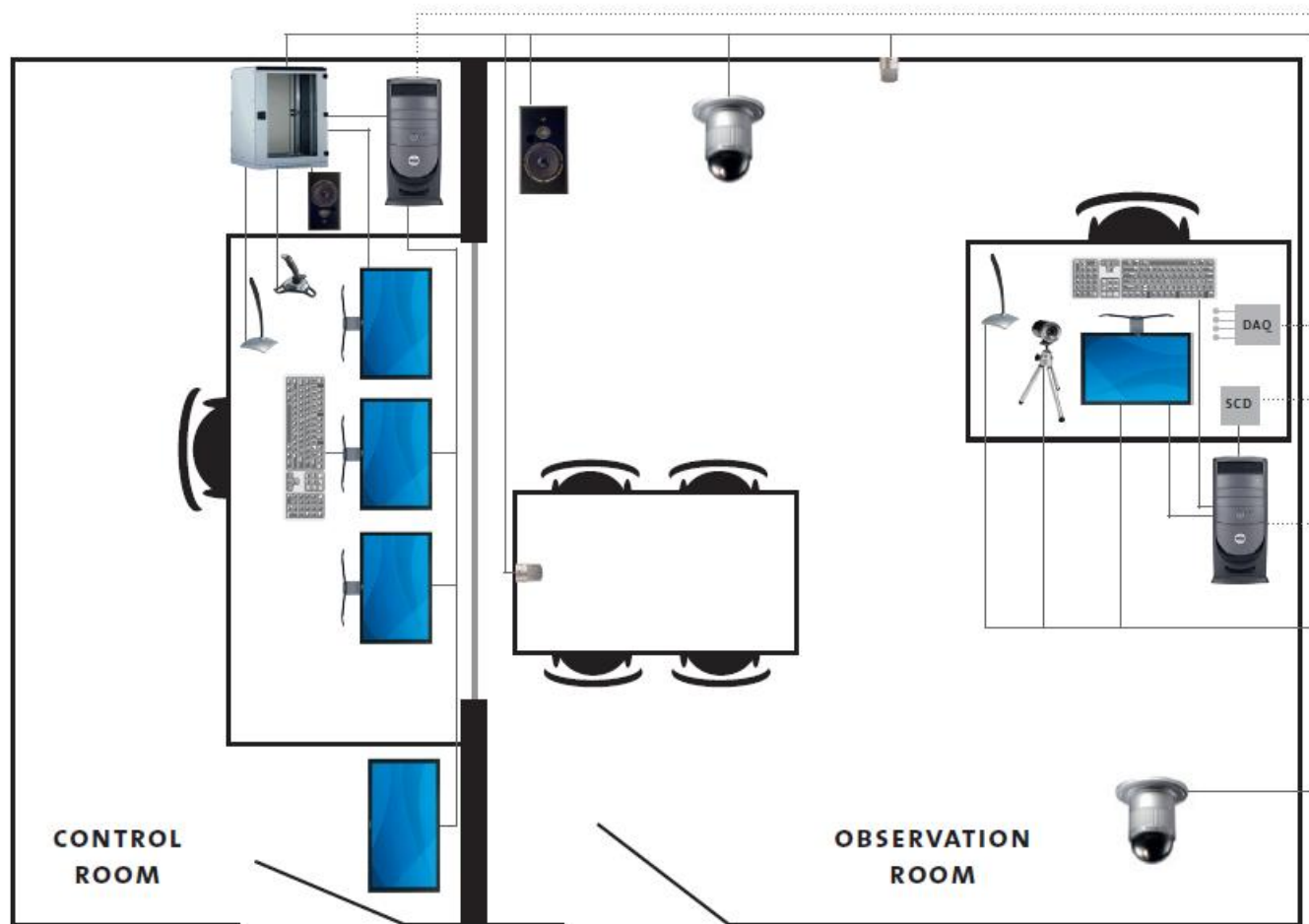
9

- 至少两个房间
 - 观察室 *
 - 测试室 *
 - 设备室
 - 会议室
 - 办公室



场地Space

- 至少两个房间
 - 观察室 *
 - 测试室 *
 - 设备室
 - 会议室
 - 办公室



Example floor plan of a fixed usability lab. On the left side is the control room. It contains multiple monitors for camera images, an audio-visual system, a push microphone, and a speaker. A large plasma screen allows multiple people to watch. On the right side is the observation room. It is equipped with dome cameras, microphones, and an intercom. On the desk there is a test computer. A camera, microphone, a screen capture device, and DAQ system capture the test participant's activities. The Observer XT controls and synchronizes the equipment, and integrates video and data. The test leader records tasks, user behavior, and other events.

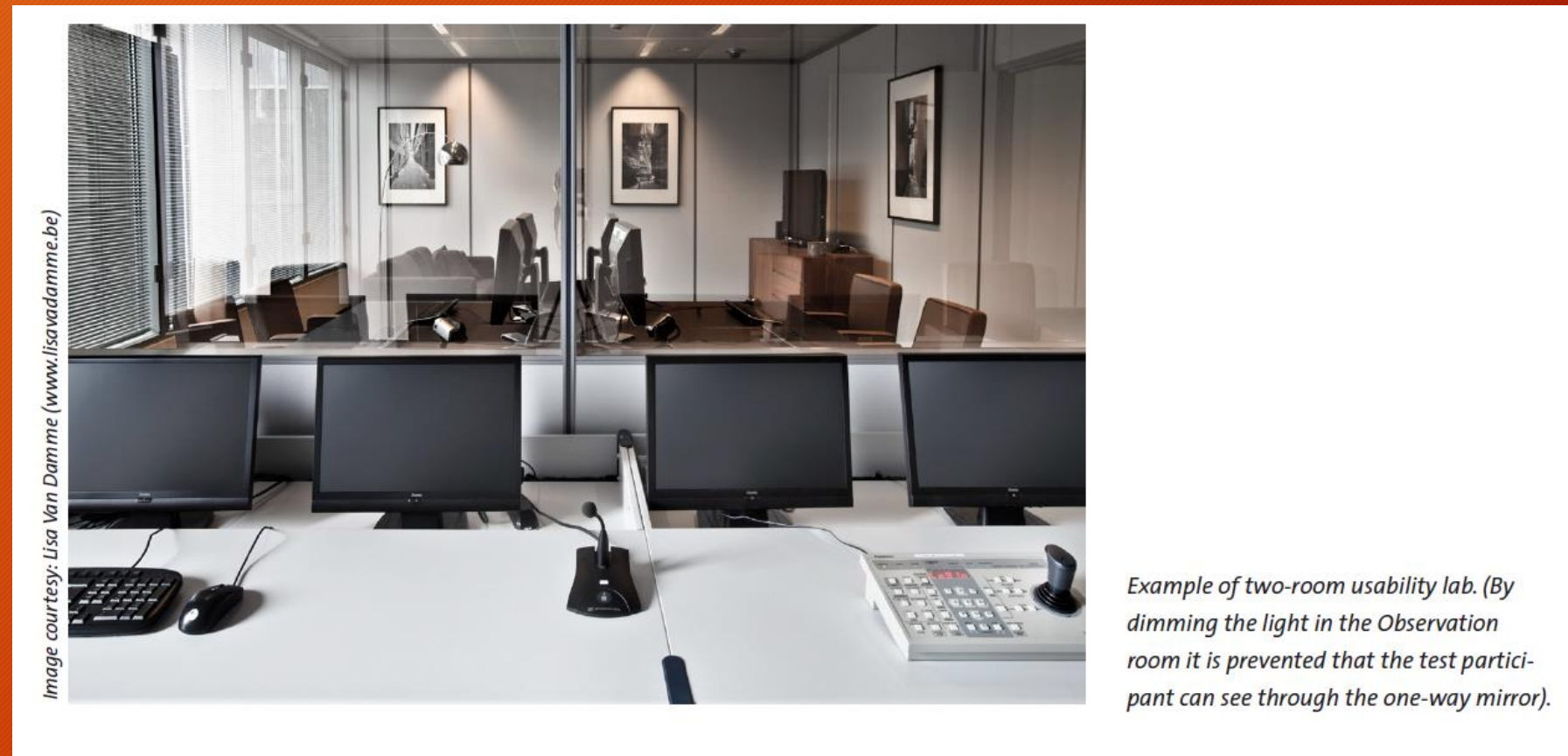
场地Space

11

- 单向玻璃室

The minimal dimensions of a one-way mirror are approximately 2 by 0.8 meters. From our experience, we know that 3 mirrors (2 meters each) are much cheaper than one mirror of 6 meters.

Light intensity in the User and Observation room is approximately 1500 Lux (lower by dimming it)



Example of two-room usability lab. (By dimming the light in the Observation room it is prevented that the test participant can see through the one-way mirror).

硬件 Hardware

12

- 电脑
- 笔记本
- 平板电脑
- 智能手机
- 眼动仪
- 摄像头
- 麦克风
- 网络
- 投影仪
- a warning sign
- Uninterrupted Power Supplies 不间断供电设备 (UPS)
- **Tables** for putting the monitors on. These can range from simple straightforward tables to custom prepared PC or monitor tables.
- **Chairs**, closets/cabinets for storage.
- A **refrigerator** in an adjacent room could provide the necessary refreshments

硬件 Hardware

13

- 电脑
 - laptop for logging events
 - laptop for the participant in testing situation involving a computer



A basic lab setup has 2 laptops and a video camera

多媒体录制硬件

14

- video camera (built-in or external)
- hard drive or DVD for recordings
- microphone (built-in or external)
- assorted cables to connect all devices
 - a long HDMI cable (10 m).
- video matrix switcher
- video mixer for editing and creating a picture-in-picture image



A video mixing board adds editing capabilities

多媒体录制硬件

15

Equipment used in the User room	Description
Dome camera (integrated zoom/pan/tilt)	Dome cameras may be installed in the ceiling or at other heights to record body language or interaction in great detail.
Camera on tripod / in hand	Camcorders can be positioned anywhere needed.
Mini camera mounted on a device (Mobile Device Camera)	An ideal option for testing mobile phones, tablets, or other small devices.
Webcam	To record facial expressions.

网络设施

16

- Apple Airport Extreme
- Built-in Wireless Card + 猎豹免费WiFi

移动设备屏幕投射硬件

17

- Chromecast
- Apple TV

投影设备

18

- 大屏幕电视机
- 投影仪
- 小型移动投影仪

软件 Software

19

- Collaborative meeting software
 - GoToMeeting
 - Adobe Connect
 - WebEx
 - Join.me

软件 Software

20

- Observational software
 - Morae by TechSmith
 - The Observer® XT

软件 Software

21

- Sketch Design software
 - Photoshop
 - 笔和纸

软件 Software

22

- Interactive Design software
 - Axure RP
 - Justinmind
 - Proto.io

移动设备屏幕投射软件 iOS版

23

- Airsquirrels - Reflector Compatible Devices (\$ 12.99)
 - <http://www.air squirrels.com/reflector/compatibledevices/>

移动设备屏幕投射软件 Android版

24

- MirrorOP Receiver
- MirrorOP Sender

录屏软件 PC版

25

- 屏幕录像大师
- uSee Behavior Logger 优视行为记录软件
- Morae (贵, 贵, 贵)

录屏软件 mac版

26

- QuickTime Player app
 - taking picture and sound from the MacBook
 - makes it possible to simultaneously view on the projector.
- Photo Booth app
 - displays the image of the MacBook iSight camera on the screen of the MacBook.

录屏软件 iOS版

27

- iOS Screen Recorder （需要越狱iOS 设备）



录屏软件 Android版

28

事件记录软件 iOS版

29

- My Mobile Logger
 - URL
 - 键盘输入
 - 任务完成时间
 - 触摸位置和次数
- 备注：
 - 需要越狱iOS 设备
 - 需要启用第三方输入法
 - 基本上唯一解决方案

事件记录软件 Android版

30

- My Mobile Logger
 - URL
 - 键盘输入
 - 任务完成时间
 - 触摸位置和次数
- 备注：
 - 需要root Android 设备
 - 需要启用第三方输入法
 - 基本上唯一解决方案

如何组建移动用户体验实验室？

31

Why use it? 为何需要移动的用户体验实验室?

32

- Perform field research studies.
- Synchronous recordings of Human-Computer Interactions, video, and audio.
- High resolution screen capturing, operating system independent.
- Designed for traveling.
- Quick set-up.
- Cost-effective.

如何组建用户体验咨询公司？

33

如何组建用户体验咨询公司？

34

- 用户体验技术
- 行业经验
- 行业声誉
- 领导能力
- 沟通能力
- 资金

案例1： 优异咨询公司（2010 ~ present）

35

- 何吉波教授
- 2006年，微软用户体验研究员，“明日之星”
- 2006年，参与推广UXPA用户体验协会
- 2010年，创立优异咨询公司，开发用户体验研究工具，提供用户体验咨询服务
- 2007 ~ 2012年，University of Illinois工程心理学博士，“最有价值毕业生”
- 2010 ~ 2015年，State Farm Insurance Company 用户体验研究员
- 2014年 ~ 今，在北京大学讲授《用户体验研究与方法》和《工程心理学》
- 2015年 ~ 今，北师大用户体验专业硕士校外导师

案例2： 唐硕咨询公司

36

- 黄峰， UXPA前主席， 唐硕咨询合伙人
 - HCI International 教育公司中国区负责人
 - UXPA 主席
 - 创立唐硕咨询

请记住：

Take home message:

Just Do It!

37