

**IN YOUR HANDS AND
ON THE PHONE:
USABILITY AND THE
MOBILE LIBRARY
WEBSITE**

**JUNIOR TIDAL
@JUNIORTIDAL
NEW YORK CITY COLLEGE OF
TECHNOLOGY**

WHAT ARE WE TALKING ABOUT?

- **DEVELOPING MOBILE WEBSITES**
- **WHAT IS USABILITY TESTING**
- **MOBILE VS. DESKTOP USABILITY TESTING**

DEVELOPING MOBILE SITES FOR THE WEB

TWO-THIRDS OF AMERICANS OWN SMARTPHONES

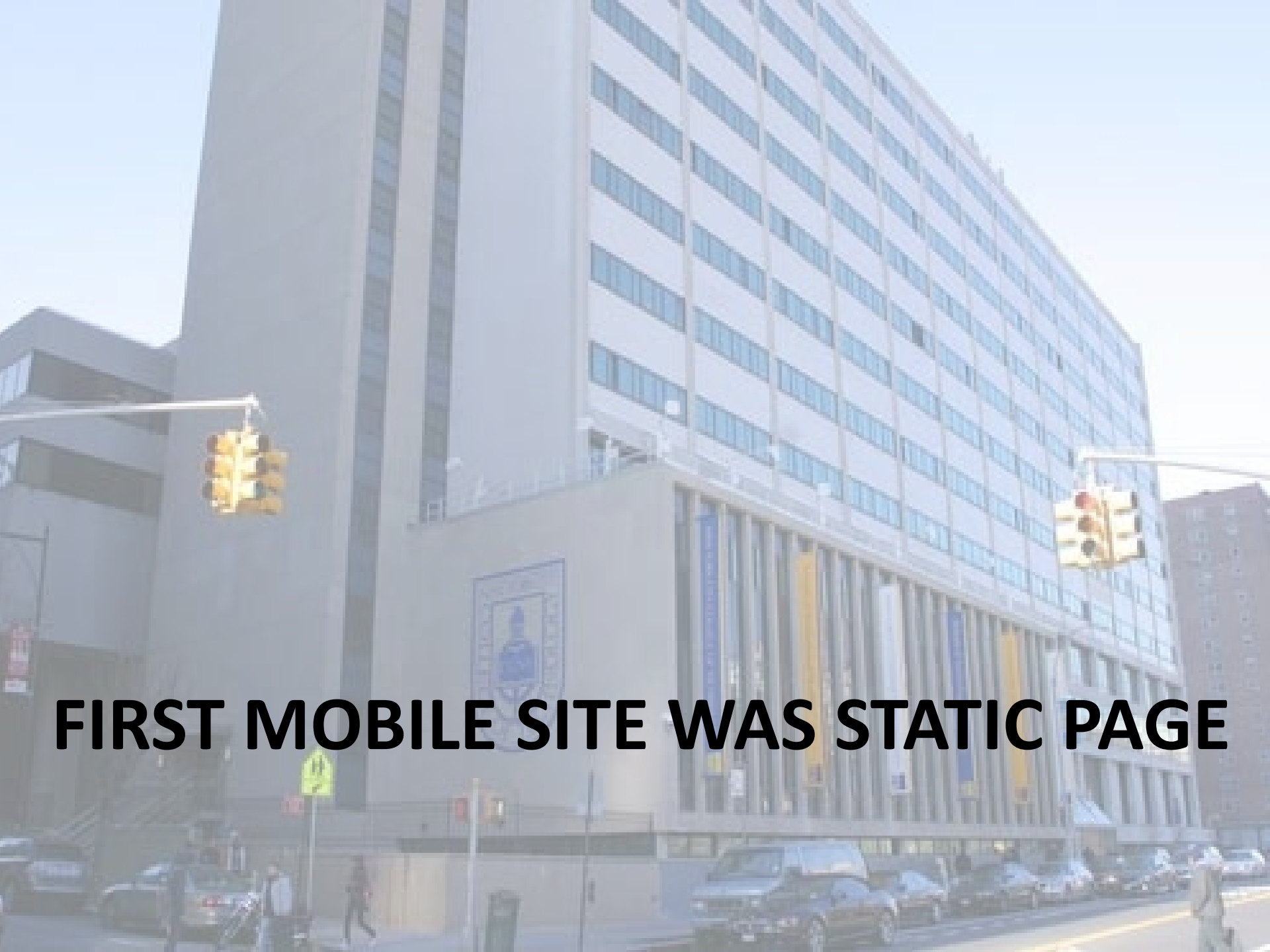




INCREASED MOBILE USAGE



**MOBILE USERS IN THE LIBRARY
AND ONLINE**



FIRST MOBILE SITE WAS STATIC PAGE



MOBILE FRIENDLY LINKS TO RESOURCES

Today's Hours: Saturday Closed -

- [Directions](#)
- [Find Books](#)
- [Find Articles](#)
- [Find eBooks](#)
- [Ask a Librarian](#)
- [Contact](#)

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SECOND ITERATION OF THE MOBILE SITE

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SEPARATE FROM THE DESKTOP SITE.

Today's Hours: Saturday Closed -

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MIRRORED FUNCTIONS OF THE DESKTOP SITE

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SITE CONTAINED:

- CONTACT**
- HOURS**
- CATALOG LOOKUP**
- ERESOURCES**

RESPONSIVE DESIGNED VERSION OF THE LIBRARY WEBSITE



Find

CUNY Catalog

Site Search

Welcome to City Tech Library. What are you looking for?

Everything



Find books, media, and more

Search

Advanced Search

Didn't find what you were looking for? [Ask A Librarian](#)



Start Your Research

- Find Books
- Find Articles
- Find eBooks
- Find Journals
- Research Guides
- Interlibrary Loan

Today's Hours

Open
9:00 am to 5:00 pm
[More Hours](#)

Tweets

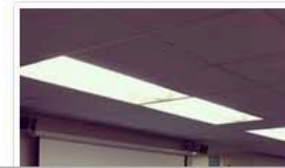
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Make Easy, Durable Links to Library Content
cityte.ch/me
[Expand](#)

City Tech Library @CityTechLibrary 17 Sep
Attend a Faculty panel on Open Educational Resources
cityte.ch/md
[Expand](#)

Tweet to @CityTechLibrary

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Upcoming Events

Event	Date	Room
Using Your New York Times Academic Pass workshop	Wednesday, Sep 30 1:00 pm	Library A441
OneSearch Workshop	Tuesday, Oct 27 1:00 pm	Library A441
OneSearch Workshop	Monday, Nov 9 11:00 am	Library A441
OneSearch Workshop	Wednesday, Oct 21 11:00 am	Library Screening Room/Rm. A432



Find

CUNY Catalog

Site Search

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Library. What are you looking
for?

Everything

Find books, media, and more

Search

[Advanced Search](#)

Didn't find what you were looking for?


[Ask A Librarian](#)

 **EasyBib**
by imagine easy

Start Your Research

 [Find Books](#)

 [Find Articles](#)

 [Find eBooks](#)

 [Find Journals](#)

 [Research Guides](#)

DEVELOPING THE LIBRARY WEBSITE

PRIOR USABILITY TESTS

```
383 #else
384     FAIL("Red violation")
385 #endif
386     fprintf(stderr, "Red violation");
387
388     return 0;
389 }
390 #ifdef VERBOSE_RBT_VERIFY
391     if (left)
392         printf("%ld\n", left->data);
393     if (right)
394         printf("%ld\n", right->data);
395 #endif
396     height_l = rbt_verify_n(left, compare);
397     height_r = rbt_verify_n(right, compare);
398
399     // Verify BST property.
400     if (((left != NULL) && (compare->compare(GET_DATA(left),
401         (right != NULL) && (compare->compare(GET_DATA(right),
402         #ifdef VERBOSE_RBT_VERIFY
403             FAIL("BST violation");
404         fprintf(stderr,
```

WEB ANALYTICS DATA

```
383 #ifdef RBT_VERIFY
384 #else
385 #endif
386 fprintf(stderr, "Red violation\n");
387
388 return 0;
389 }
390 #ifdef VERBOSE_RBT_VERIFY
391 if (left)
392     printf("%d\n", left->data);
393 if (right)
394     printf("%d\n", right->data);
395
396 height_l = rbt_verify_n(left, compare);
397 height_r = rbt_verify_n(right, compare);
398
399 // Verify BST property.
400 if (((left != NULL) && (compare->compare(left->data, right->data) < 0)) ||
401     ((right != NULL) && (compare->compare(left->data, right->data) > 0)))
402 #endif
403     FAIL("BST violation");
404
405 fprintf(stderr, "BST is valid\n");
```

MOBILE FIRST APPROACH



TECHNICAL SPECS

```
    SavedState[] newArray(int size) {
        return new SavedState[size];
    }

    public FragmentTabHost(Context context) {
        // Note that we call through to the version that takes a AttributeSet
        // because the simple Context construct can result in a ClassNotFoundException
        super(context, null);
        initFragmentTabHost(context, null);
    }

    public FragmentTabHost(Context context, AttributeSet attrs) {
        super(context, attrs);
        initFragmentTabHost(context, attrs);
    }
}
```

DRUPAL 7 CONTENT MANAGEMENT SYSTEM

```
... SavedState[] newArray(int size) {  
    return new SavedState[size];  
}
```

```
... Context context) {  
    // Note that we call through to the version that takes a Context  
    // because the simple Context construct can result in a warning  
    super(context, null);  
    setContentView(context, null);  
}
```

```
public FragmentLayout(Context context, AttributeSet attrs) {  
    super(context, attrs);  
    setContentView(context, attrs);  
}
```

BOOTSTRAP WEB FRAMEWORK

```
    savedState[] newArray(int size) {  
        return new SavedState[size];  
    }  
  
    public FragmentTabHost(Context context) {  
        // Note that we call through to the version that takes a resource.  
        // Because the simple Context construct can't take a resource.  
        super(context, null);  
        initFragmentTabHost(context, null);  
    }  
  
    public FragmentTabHost(Context context, AttributeSet attrs) {  
        super(context, attrs);  
        initFragmentTabHost(context, attrs);  
    }
```

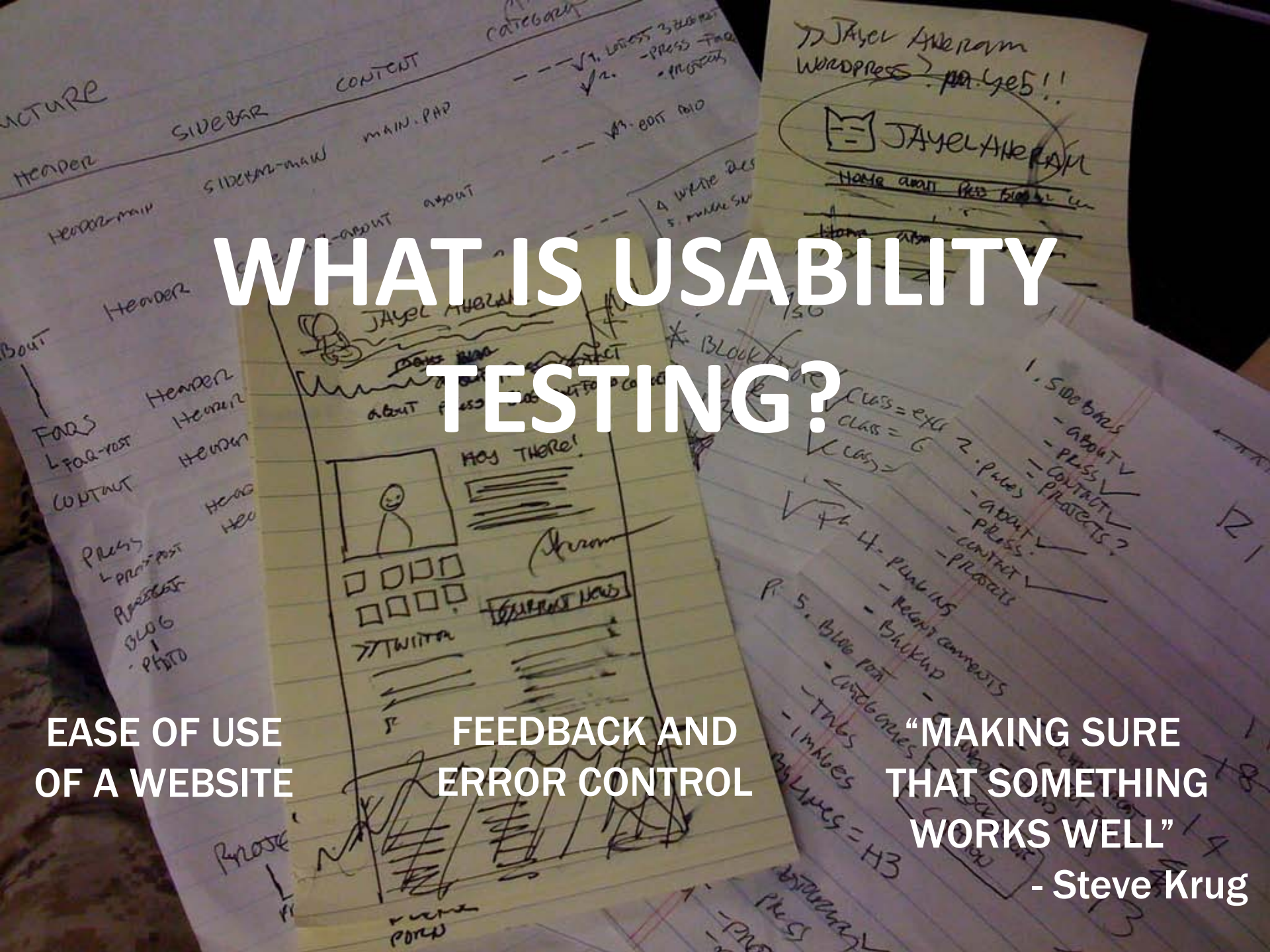
WHAT IS USABILITY TESTING?

EASE OF USE
OF A WEBSITE

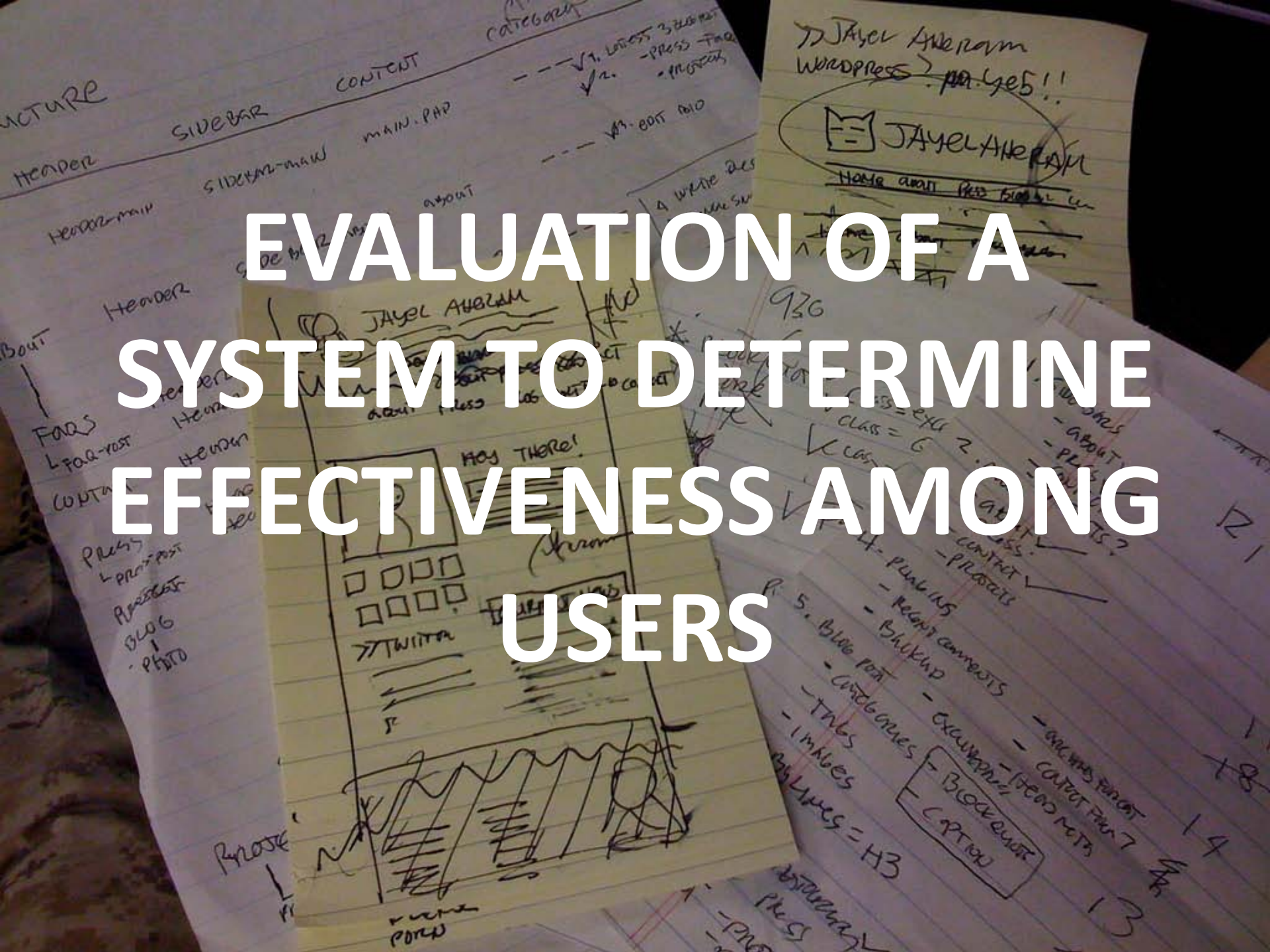
FEEDBACK AND
ERROR CONTROL

“MAKING SURE
THAT SOMETHING
WORKS WELL”

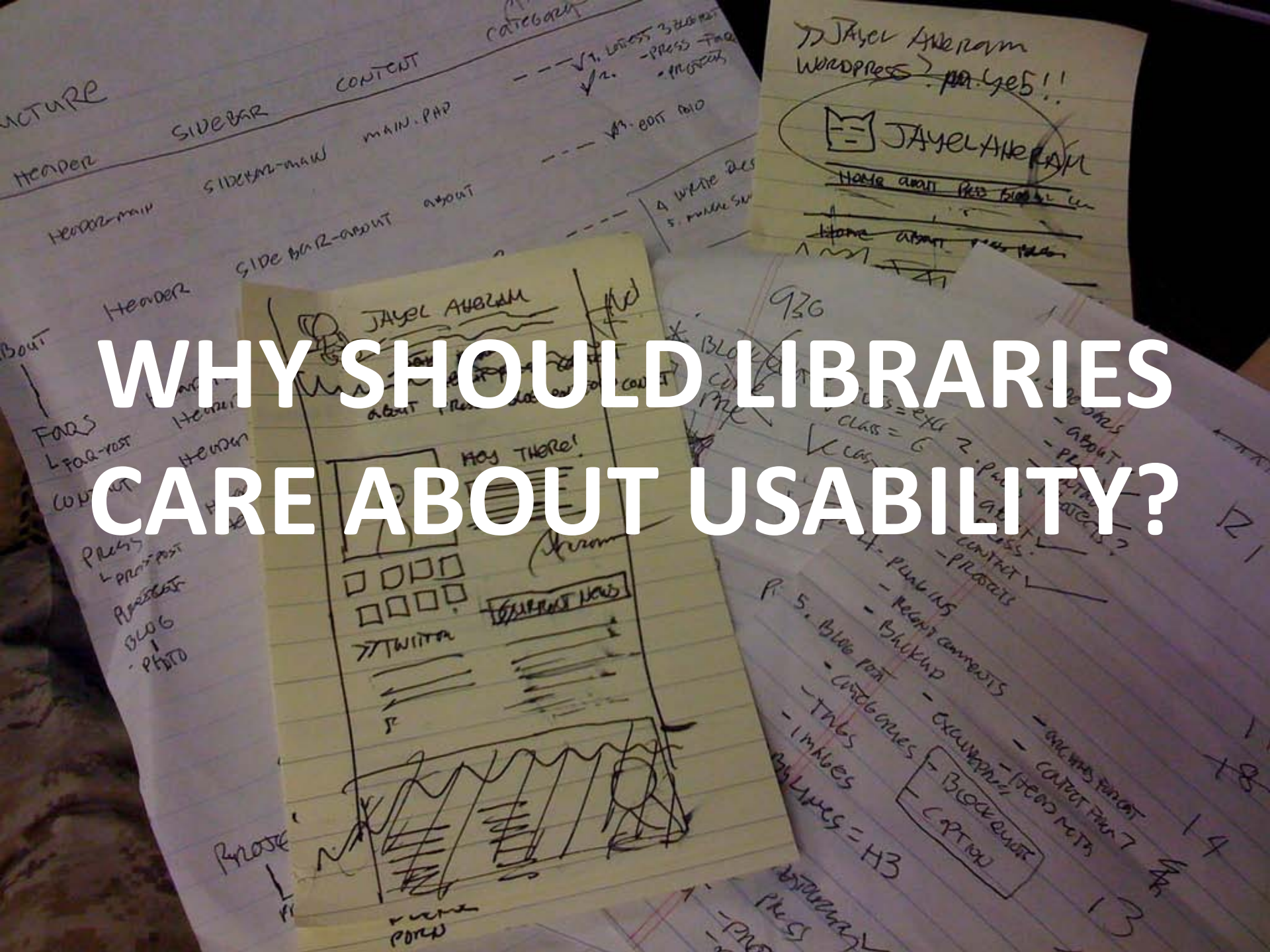
- Steve Krug



EVALUATION OF A SYSTEM TO DETERMINE EFFECTIVENESS AMONG USERS



WHY SHOULD LIBRARIES CARE ABOUT USABILITY?



COGNITIVE WALKTHROUGH



17. CONTEST SOCIAL

18. PORTAL



INTEGRAZIONE
DEI SERVIZI
E SERVIZI
DIGITALI

LA UASIE
CASA IL PD
CASA DI BORDO
(foto, immagini,
report, disegni
....) DIGITALI

TASKS ARE GOALS THE WEBSITE SUPPORTS



TASKS = TASK SCENARIOS



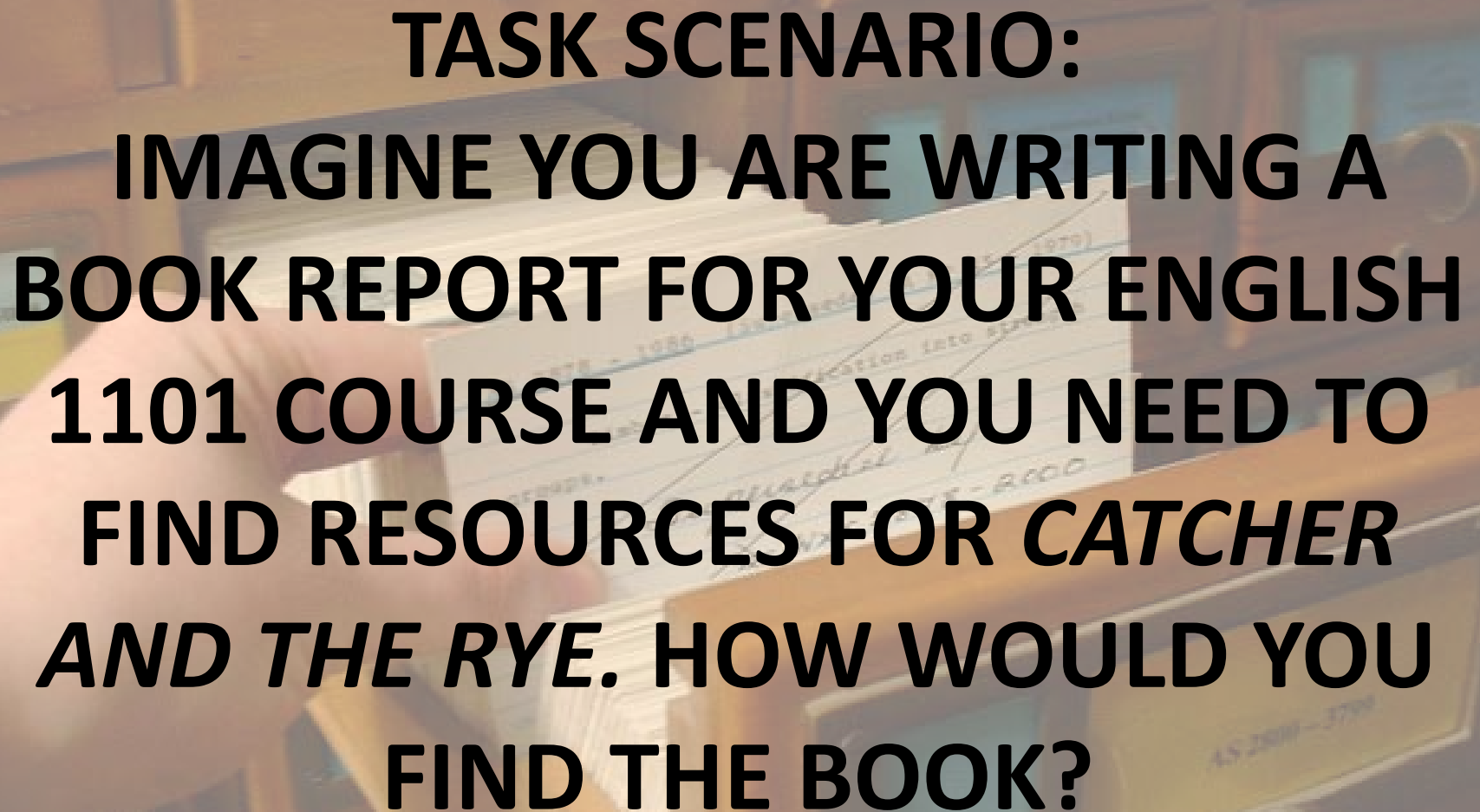
TASK SCENARIOS PROVIDE CONTEXT



For Example...

**GOAL:
FIND A BOOK IN THE
LIBRARY CATALOG**



A person's hands are shown holding a book in a library setting. The background is a blurred view of bookshelves filled with books. The text is overlaid on the image in a bold, black, sans-serif font. The text reads: "TASK SCENARIO: IMAGINE YOU ARE WRITING A BOOK REPORT FOR YOUR ENGLISH 1101 COURSE AND YOU NEED TO FIND RESOURCES FOR *CATCHER AND THE RYE*. HOW WOULD YOU FIND THE BOOK?"

TASK SCENARIO:
IMAGINE YOU ARE WRITING A
BOOK REPORT FOR YOUR ENGLISH
1101 COURSE AND YOU NEED TO
FIND RESOURCES FOR *CATCHER*
***AND THE RYE*. HOW WOULD YOU**
FIND THE BOOK?

METRICS:

- TIME
- SUCCESS/FAILURE
- NUMBER OF
CLICKS/TAPS



METRICS PROVIDE DATA



DATA CREATES PATTERNS



**PATTERNS IDENTIFY
USABILITY OBSTACLES
OR MERITS**

THINK-ALOUD PROTOCOL (TAP)



A smartphone is shown lying on a laptop keyboard. The phone's screen displays a news application. On the left side of the screen, there is a vertical grid of several small article thumbnails, each with a red 'X' icon in the top right corner, indicating that they are broken or failed to load. On the right side of the screen, a larger article is displayed with a headline in Swedish: "Ingen direkt order att lockera Khaddafi". The background is a close-up of a laptop keyboard with dark keys.

USABILITY TESTING: MOBILE VS. DESKTOP

HARDWARE

A smartphone is shown at an angle, displaying a news application. The screen shows a grid of news items on the left and a larger article on the right with a headline in Swedish: "Ingen direkt order att locka Khaddafi". The phone is placed on a laptop keyboard, which is visible in the background. The overall image has a semi-transparent overlay.

**MOBILE DEVICES:
SMARTPHONES,
TABLETS, OR E-
READERS**

**TOUCH ENABLED
INTERFACES FOR
DATA ENTRY**

**SMALLER SCREEN
SIZES,
RESOLUTIONS, AND
SLOWER NETWORK
SPEED**

CONTEXT OF USE



CONTEXT OF USE IS
DIFFERENT
BETWEEN MOBILE
DEVICES AND
DESKTOP
WORKSTATIONS

MOBILE DEVICES
CAN BE USED
ANYWHERE AND AT
ANYTIME

BROADBAND
CONNECTIVITY VS
WIFI OR CELLULAR
NETWORK
CONNECTIVITY

LAB TESTING

A smartphone is shown at an angle, displaying a news application. The screen features a grid of article thumbnails on the left and a larger article preview on the right. The background is a blurred laptop keyboard.

CONTROL OVER
NETWORK
CONNECTIVITY

EASIER TO RECORD
USERS DATA
DURING TESTING

DEVICES CAN BE
PROVIDED

FIELD TESTING

A smartphone is shown at an angle, displaying a news application. The screen shows a grid of news items, some with red 'X' marks, and a larger article on the right with a photo of a person. The phone is placed on a laptop keyboard, which is visible in the background. The overall image has a soft, slightly blurred aesthetic.

FIELD TESTING IS
DONE IN A
REALISTIC SETTING

UNCERTAINTY OF
CONNECTIVITY
OVER WIFI AND
CELLULAR
CONNECTIONS

HARDER TO
TROUBLESHOOT
HARDWARE
PROBLEMS



USABILITY TESTING IS CONTINUAL

WRAPPING UP

QUESTIONS?

THANKS!