



Process Tracing with MouselabWEB

Details on MouselabWEB

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Where innovation starts

Design: MouselabWEB

Goal: perform Mouselab-like process tracing experiments on the web (and in the lab)

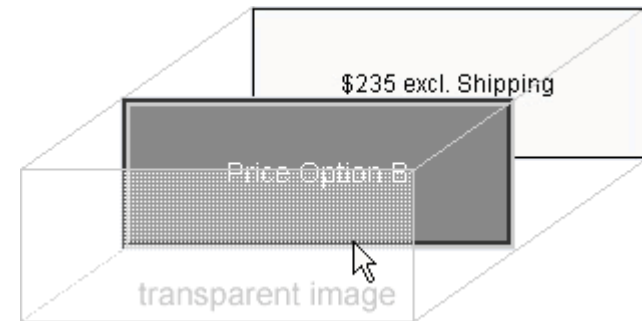
Approach: simple HTML/javascript available in recent browsers (works in 99% of browsers)

- Operating System Independent
 - No network delays: (Client-side, 1/60th second precision)
 - Fast and Easy: No plug-ins, small pages
 - No hassle server-side scripting (php/mysql)
 - Easily extended: Open source (GNU license)
- Drawbacks:
- Some coding you have to do yourself...

How does it work?

Transparent image captures mouseovers which unhides the information

Event get recorded via javascript into a process data field



Other form data (i.e. radio buttons or text fields) is also recorded

Without having to predefine these variables in the database!

Every page links to another page and data is saved in between (using PHP)

Datalyser can extract the data without hassle

What do I need? (RTFM)

Web hosting that can run php/mysql

Easy to get: I use a 30 euro/year hosting for mouselabweb.org

Download the scripts to your computer

Adjust the script that links to the database with the right access codes

Put all scripts in a folder on your domain (using FTP)

Open create_table.php to create the data table for this experiment

Generate pages in the designer and upload them and it should work 😊

Designer: some more features

The screenshot shows the MouselabWEB Designer interface. Several features are highlighted with red circles:

- MouselabWEB Designer v. 1.00b** logo and **help** button.
- load** and **clear** buttons.
- Open** button and **Mouseover** dropdown menu.
- Close** button and **Mouseout** dropdown menu.
- format** section with **CSV** and **XML** radio buttons.
- master** field set to **1** and **rand** checkbox.
- timer Active** checkbox and **timer properties** button.
- Counterbalancing** section with **Auto (1 cond)** and **Manual** radio buttons.
- Row: 1** section with **name** field set to **a0** and **active** checkbox checked.

A blue callout box with the text **Text/scales before the MouselabWEB table** points to the **Pre HTML** section.

The interface includes the following sections:

- General Settings**: expname, email, next Page (thanks.html), form (mlwebform).
- Appearance**: CSS (mlweb.css), active (actTD), box front (boxTD), inactive (inactTD).
- output**: test, html, serverside (php).
- Window Title**: MouselabWEB Survey.
- Check all on submit for missing responses** checkbox.
- Warning Text**: Some questions have not been answered.
- Pre HTML** section with **edit pre HTML** button.
- MouselabWEB Table** section with **Table** button.
- Post HTML** section with **edit post HTML** button.
- Text on submit button**: Next Page.

Counterbalancing...

Condnum contains a sequence number that is passed from page to page

Counterbalancing will be done on this number

Much freedom in counterbalancing (and fixing labels)

Counterbalancing:

☐ Auto (2 cond)

☒ Manual (2 cond) **Set**

Col: 1 move: 1 ▼ **Del**

Width: 100 Type: CBal. ▼

☐ Fix Col labels

new Col **new Btms**

Row: 1

Height: 50

Type: CBal.

name: a0 active: ☒

boxtd: box1

text: value1

Row: 2 move: 2 ▼ **Del**

Height: 50

Type: CBal. ▼

name: b0 active: ☒

boxtd: box2

text: value2

☐ Fix row labels

new row **new Btms**

Post HTML

Text on submit button: Next Page

Manual CB orders **Close**

Ord.no.	Columns	Rows	Sel
1	1	1 2	<input type="checkbox"/>
2	1	2 1	<input type="checkbox"/>

select All **inv. Selection** **Del Selected**

input: Separate column and row numbers by semicolons (;)

col: row:

add

New list based on counterbalancing

New List

Importance of Counterbalancing

Reading order effects (people start at top-left in most countries)

meaningful counterbalancing

- Order as a condition: variable of interest (context effects)

- Use a limited set of orders that are meaningful (gambles)

Controlling presentation effects

- Use all possible orders and perhaps set it to random (besides 'master cond') (food)

Counterbalancing with conditions: master condition allows you to prevent confounds...

Use HTML code

You can use HTML and CSS to improve the look and feel of the website

To some extent also possible within the boxes, but don't use DIV and SPAN functions

 might be very useful in many cases 😊

The pre- and post-HTML boxes can contain a lot of extra HTML and form elements to gather more data. Everything that is a form element `<input type="..">` will end up in your dataset. **Check the helpful tools (scales, text field)**

A page without mouselabWEB table can also be build to have additional surveys

Additional features

Timer: add some time pressure
No boxes can be opened
anymore when the time is up...

Time Bar Settings		Close
Total time: 60 sec	Steps: 1 sec	
Bar length: 200 px	Label: Timer:	
Progress direction: <input checked="" type="radio"/> fill (from left) <input type="radio"/> empty (from right)	Start timer when: <input checked="" type="radio"/> page is loaded <input type="radio"/> first box is opened	
Show time in bar <input checked="" type="checkbox"/>	Format: min:sec	
Create Bar in active part		

Under the hood

Designer generates a page with the MLWEB table in HTML code and a large set of settings (in javascript) to control that table

- Timer

- Counterbalancing
content

- Labels / sizes

At the start of the page, the MLWEB table is reordered based on the counterbalancing settings

Changing variables in the javascript can be used to tweak pages after creation!

Get notepad++ for serious editing (also for R)

Setup of the page

See the comments in the code

```
<!-- BEGIN TABLE STRUCTURE-->
```

```
<!-- BEGIN PRE-HTML -->
```

```
<!-- MOUSELABWEB TABLE -->
```

```
<!-- BEGIN PRE-HTML -->
```

```
<!--BEGIN TABLE STRUCTURE-->
<SCRIPT language="javascript">
//override defaults
mlweb_outtype="CSV";
mlweb_fname="mlwebform";
tag = "d0^d1^d2^d3^d4`"
  + "o_a1^p_a1^b2^o_b1^p_b1`"
  + "o_a2^p_a2^c2^o_b2^p_b2";

txt = "Option A: outcomes^option A: probabilit
  + "+400^35/36^^+1600^11/36`"
  + "-100^1/36^^-150^25/36";
```

```
<!-- MOUSELAB TABLE -->
<TABLE border=1>
<TR>
<!--cell a0(tag:d0)-->
<TD align=center valign=middle><DIV ID="a0_cor
><DIV ID="a0_txt" STYLE="position: absolute; l
rect(0px 100px 50px 0px); z-index: 1;"><TABLE>
45 class="inactTD">Option A: outcomes</TD></TR>
left: 0px; top: 0px; height: 50px; width: 100px;
ID="a0_tdbox" align=center valign=center width
"a0_img" STYLE="position: absolute; left: 0px;
HREF="javascript:void(0);" NAME="a0" onMouseOv
"HideCont('a0',event)"><IMG NAME="a0" SRC="tr
<!--end cell-->
```