



# Creating Reliable Web Journeys



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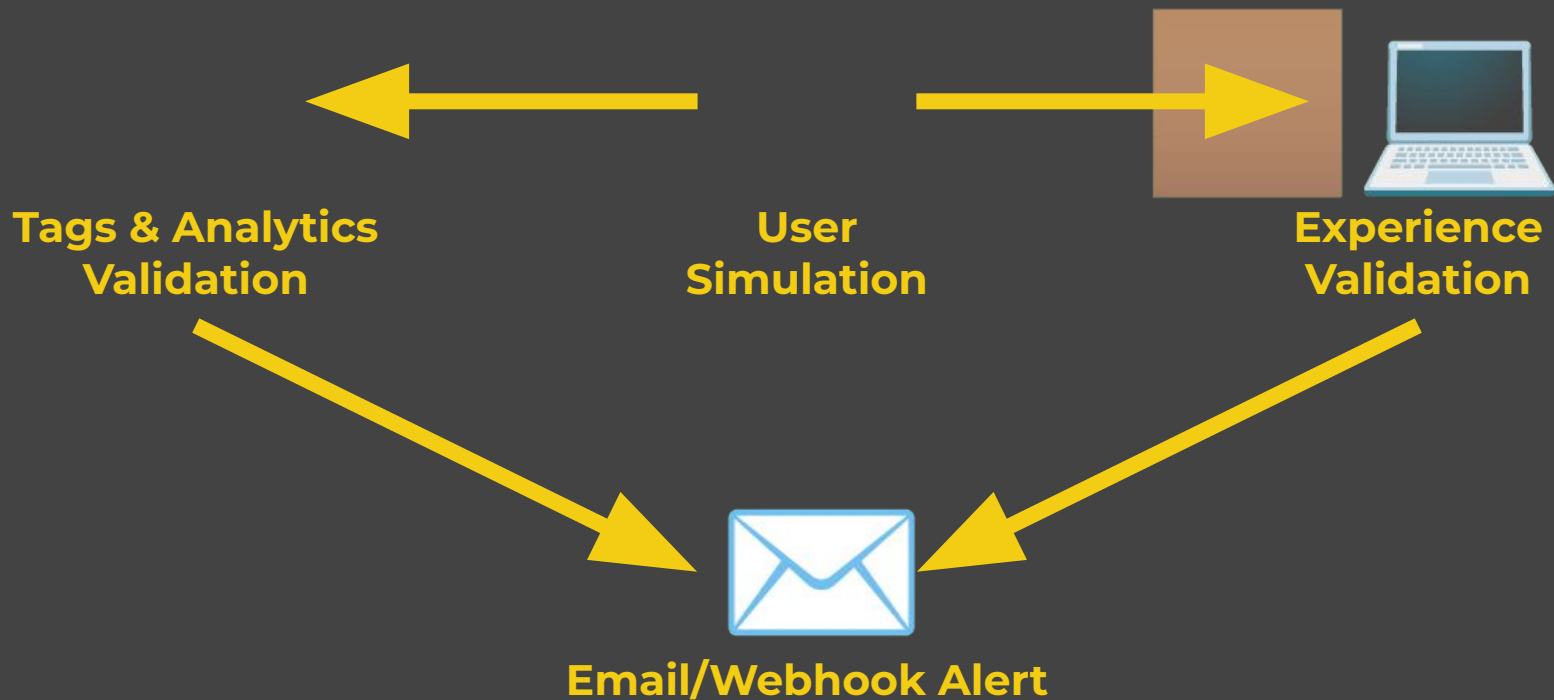
Principal Engineer

ObservePoint



# Agenda

- Why Web Journeys (4 minutes)
- Anatomy of a Failure (4 minutes)
- 10 Lessons from an Operator (20 minutes)



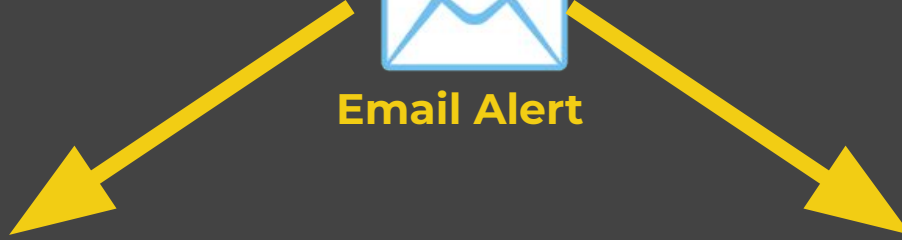


## Use-cases

- Continuously monitor the availability of eCommerce application.
- Ensure a loan application submits the correct data.
- Confirm tags collect funnel data during a checkout flow.
- ... and infinite more.



**Email Alert**



**True Failure**

Website is wrong

**False Failure**

Journey is wrong



# 10 Lessons from Running Millions of Web Journeys Annually



**DON'T.** Create rules that test multiple tags.





EDIT RULE - PROD :: UNIVERSAL STANDARD



Select Tag* Adobe Analytics					⊗
Variable* page	Operator* equals	Selector* String	Value* /	Validation description	⊗
<input type="checkbox"/> Match as RegEx					
⊕ Add Account OR ⊕ Add Variable					
Select Tag* Google reCAPTCHA					⊗
⊕ Add Account OR ⊕ Add Variable					
Select Tag* Data Layer					⊗
Variable* user	Operator* equals	Selector* String	Value* 55821	Validation description	⊗
<input type="checkbox"/> Match as RegEx					
⊕ Add Account OR ⊕ Add Variable					
Select Tag* Optimizely Setup					⊗
Variable* group	Operator* equals	Selector* String	Value* control	Validation description	⊗
<input type="checkbox"/> Match as RegEx					
⊕ Add Account OR ⊕ Add Variable					
Select Tag* Google Adsense					⊗
Account	Operator* equals	Value pub-88402	Validation description		⊗
⊕ Add Variable					

CANCEL

⊙ GENERAL

SAVE RULE



**DON'T.** Create rules that test multiple tag.

**Do.** Create rules that test a single tag.



## Tag & Variable Rules ?

🔍 Search By Name 🔗 Filters ▾

NAME	TYPE	LABELS
Prod :: Adobe Analytics :: Checkout	Custom	event <span>×</span> <span>+</span>
Prod :: Adobe Analytics :: Purchase	Custom	event <span>×</span> <span>+</span>
Prod :: Adobe Analytics :: Register	Custom	event <span>×</span> <span>+</span>
Prod :: Adobe Analytics :: Tag	Custom	tag <span>×</span> <span>+</span>
Prod :: Adobe Analytics :: Upsell	Custom	event <span>×</span> <span>+</span>
Prod :: reCAPTCHA :: Tag	Custom	tag <span>×</span> <span>+</span>
Shared :: Data Layer :: Account	Custom	event <span>×</span> <span>+</span>
Shared :: Data Layer :: Page View	Custom	event <span>×</span> <span>+</span>
Shared :: Optimizely :: Tag	Custom	tag <span>×</span> <span>+</span>
Stage :: Adobe Analytics :: Tag	Custom	tag <span>×</span> <span>+</span>



▼ ⓘ FAILED RULES (2)

▼ ⓘ Shared :: Optimizely :: Tag

Missing tags

Optimizely Setup

> ⓘ Stage :: Adobe Analytics :: Tag

> ⓘ RULES NOT APPLIED (0)

▼ ✓ PASSED RULES (1)

Prod :: reCAPTCHA :: Tag



**DON'T.** Create long journeys that test entire workflows.

**Do.** Bias toward short journeys that test a single point of interest.

**Unless.** The workflow is context dependent (and you cannot inject data to the session).



**DON'T.** Navigate with click actions.



### 1. Open website

Action Type  
Navigate To

URL\*  
https://example.com

Wait  additional seconds on this action.

+ Add Tag & Variable Rule(s) to this Action

### 2. Click "See More..." button



Action Type  
Click  Prevent Navigation

Select  
CSS Se...  Selector Value  
[data-test-id="see-more-info"]

+ Add Alternate Selectors

Wait  additional seconds on this action.

+ Add Tag & Variable Rule(s) to this Action



**DON'T.** Navigate by clicking.

**Do.** Navigate directly using the “Navigate to” action.





### 1. Open "More Info"

Action Type

Navigate To

URL\*

https://example.com/more-info

Wait  additional seconds on this action.

[⊕ Add Tag & Variable Rule\(s\) to this Action](#)



**DON'T.** Navigate by clicking.

**Do.** Navigate directly using the Navigate to action.

**Unless.** ~~You need to test analytics along a navigation path.~~



**DON'T.** Navigate by clicking.

**Do.** Navigate directly using the Navigate to action.

**Unless.** Deep links are unavailable.



**DON'T.** Ratchet up wait times



### 3. Longfin Squid



Action Type  
Click

Prevent Navigation

Select  
XPath

Selector Value  
[data-test-id="longfin-squid"]

+ Add Alternate Selectors

Wait 10 additional seconds on this action.

+ Add Tag & Variable Rule(s) to this Action



### 3. Longfin Squid



Action Type

Execute JavaScript



Prevent Navigation

JavaScript\*

```
1 setTimeout(() => {  
2   document.querySelector('[data-test-id="wildlife-search"]')  
3 }, 10000)
```

Wait

additional seconds on this action.

Add Tag & Variable Rule(s) to this Action



**DON'T.** Ratchet up wait times.

**Do.** Trust ObservePoint to wait for network silence after each step.

**Unless.** There is an explicit delay in your event.



**DON'T.** Assume dynamic content is static.





# Dynamic Content

- AB Testing & Personalization Engines
- Flight Routes are discontinued
- Hotel Rooms are fully booked
- Seasonal Products Become Available
- Price change
- Content increases in popularity
- Daylight Savings Time
- 🤡



**DON'T.** Assume dynamic content is static.

**Do.** Establish test products or facilities.

**Impossible?** You have to compensate.



**Compensate.** Create actions that detect dynamic content.

**Do.** Establish naming convention(s).



✘ Journey was stopped because there was a failure on this action.

Error: Precondition Failed: Store is out of item

🚩 HAVE JOURNEY SUPPORT FIX THE ISSUE

## ACTION



Action Type: Execute JavaScript

JavaScript:

JavaScript

```
1 // If an item is out of stock this is replaced with [data-automation-id="shipQty"].
2 const pickup = document.querySelector('[data-automation-id="pickupQty"]');
3 if(!pickup) {
4     throw new Error("Precondition Failed: Store is out of item")
5 }
```

Label: [Precond] Check Stock



**DON'T.** Use unreliable selectors.



The image shows a context menu for a web element. The main menu items are:

- Add attribute
- Edit attribute
- Edit as HTML
- Duplicate element
- Delete element
- Cut
- Copy
- Paste
- Hide element
- Force state
- Break on
- Expand recursively
- Collapse children
- Capture node screenshot
- Scroll into view
- Focus
- Badge settings...
- Store as global variable

The 'Copy' option is expanded, showing a sub-menu with the following items:

- Copy element
- Copy outerHTML
- Copy selector
- Copy JS path
- Copy styles
- Copy XPath
- Copy full XPath

The 'Copy selector' option is highlighted in blue. A red arrow points from the 'Copy' option in the main menu to the 'Copy selector' option in the sub-menu.

```
elementor-widget-but...  
effect) {  
  transition: ▶ trans...  
  overflow: ▶ hidden !...  
  position: relative;  
}  
  
@media (max-width: 767...  
.btn-mobile-version...  
.elementor-kit-1698 i...  
input[type="submit"],  
+  
);  
:  
70...  
32p...  
tt...  
  
font-weight: var(...  
background-color: ...  
  
elementor-kit-1698 bu...  
kit-1698 input[type="b...  
kit-1698 input[type="s...  
  
font-size: 20px;  
font-weight: 500;  
color: #000000;  
background-color: ...
```



```
#content > div > div >  
section.elementor-element.elementor-element-a5118d7.e-flex.e-con-boxed.e-con.e-parent.e  
-lazyloaded > div >  
div.elementor-element.elementor-element-a303b1e.e-con-full.e-flex.e-con.e-child >  
div.elementor-element.elementor-element-c78116a.elementor-mobile-align-center.animate  
d-slow.elementor-mobile_extra-align-center.hover-button-glass.elementor-widget.element  
or-widget-button > div > div > a
```



# Unreliable Selectors

- `button`
- `.shopping > a.buy`
- `.text-center`
- `.elementor-yellow`
- `.md:p-5`
- `:nth-child(0)`
- `._111a32`





# Better Selectors

- `.shopping a.buy`
- `//button[text()='Buy']`
- `a[href='/institutional-investors']`



# Reliable Selectors

- `#buy-it-now`
- `[data-test-id='buy-now']`
- `[data-test-class='search-result']`
- `[data-*)`



**DON'T.** Use unreliable selectors.

**Do.** Use reliable Selectors

**Unless.** You have no other choice.





**DON'T.** Assume your security infrastructure will not block ObservePoint.

**Do.** Work with the responsible team(s) to add ObservePoint to allowlists.

**Unless.** You enjoy troubleshooting unreliable journeys. 🙄



**DON'T.** Schedule all your journeys to run at the same time.

**Do.** Stagger your journeys to run at different times.

**~~Unless.~~** Easier to configure.



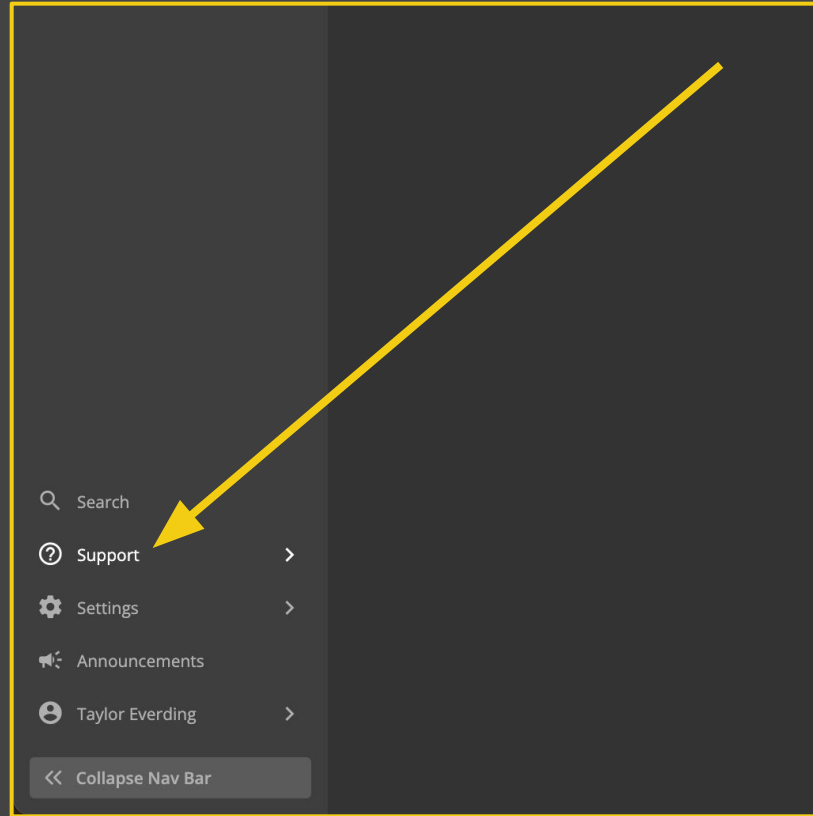
**DON'T.** Click everything on a page.

**Do.** Work with your CSM to implement our Patented ClickAll+ solution in an audit.

**Unless.**










The screenshot displays a dark-themed user interface. On the left, a vertical navigation bar contains several menu items: 'Search' with a magnifying glass icon, 'Support' with a question mark icon and a right-pointing chevron, 'Settings' with a gear icon and a right-pointing chevron, 'Announcements' with a speaker icon, and 'Taylor Everding' with a profile icon and a right-pointing chevron. At the bottom of this bar is a button labeled '<< Collapse Nav Bar'. A dropdown menu is open from the 'Support' item, listing the following options: 'SUPPORT', 'Chat/Email', 'Help Documentation', 'Keyboard Shortcuts', 'Academy Training', 'Log Database', 'Product Updates & Feedback', 'API Documentation', and 'Web Journey Support Request'. A yellow arrow originates from the 'Support' menu item and points directly to the 'API Documentation' option in the dropdown. At the bottom of the screenshot, a white text box contains the URL: <https://app.observepoint.com/web-journey-support>



You have 10 Journey Requests available this month.

## JOURNEY SUPPORT REQUEST FORM

Use this form to submit a request to the Journey Support team to create a Journey for you in your account. You will be notified by email when it is complete. [How to use this form.](#)

**Download the Excel file**  and enter each individual action you want to take place in the Journey. Describe each action in detail so that the Journey Support team can correctly implement the Journey.

JOURNEYS TO CREATE\*\*

Select number of Journeys to create

SPECIAL INSTRUCTIONS

Enter special instructions such as location, schedule, etc.

*Please download this excel file, complete it then upload the modified .xlsx file (10MB limit)*

 **UPLOAD COMPLETED TEMPLATE**

or  
drag & drop

*Upload a file or video to help our team understand your needs (150MB limit)*

 **UPLOAD VIDEO OR FILE**

or  
drag & drop

For any questions regarding the status of a request, please contact us at [journey.support@observepoint.com](mailto:journey.support@observepoint.com)

**SUBMIT**



**Thank you.**