

Abstract

In this talk, I will discuss how my team reintroduced the importance of user testing to our development process. We will share how we proved the value of A/B and Multivariate testing to our stakeholders by starting small and gradually increasing its reach and implementation. By doing so, we were able to significantly increase our onboarding completion rate. Our approach not only resulted in a better user experience for our customers but also improved our overall product development process. Join us to learn how you too can leverage user testing to improve your product development process and ultimately enhance your customers' experience.

Balley's

Hi!

Gábor Csomák
@donkeycoder



Getting started with multi-variant testing



Kelloggs Keebler Eat It All Cake 34BJ



Keebler Eat It All #25D Dispenser



Keebler Cone Colosso Waffle Bowls



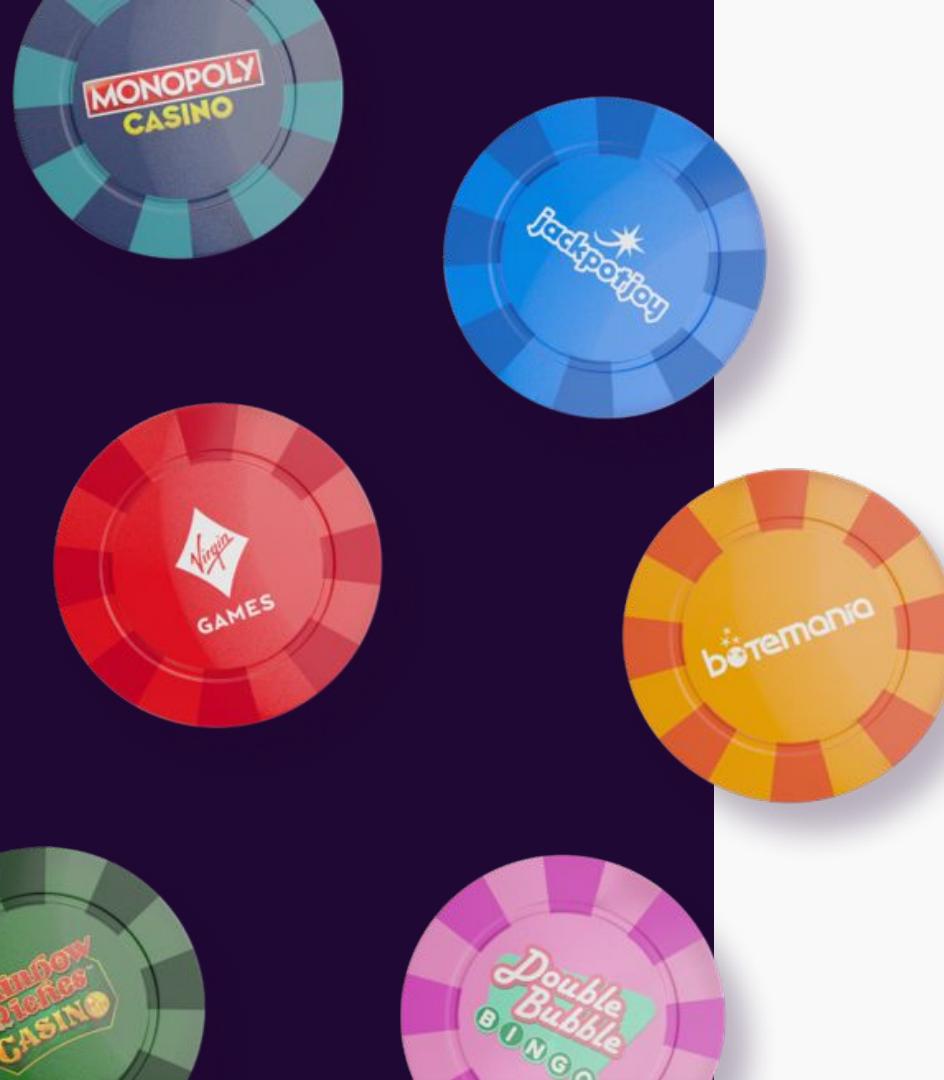
Keebler Eat It All Cake Cone 1/8.03



Keebler Honey-Roll Sugar Cone



Keebler Eat It All #204Bj Honey Roll



Bally's
INTERACTIVE

ONBOARDING JOURNEY

Google

Marketing Pages

Registration:
user name, pass

Registration:
Address, etc.

KYC

Welcome Offer
Selection

First Deposit

ONBOARDING JOURNEY

100
Step 1 - load

65
Email Field

64
First name Field

63
Last name Field

61
Step 2 - load

56
Step 2 - submit

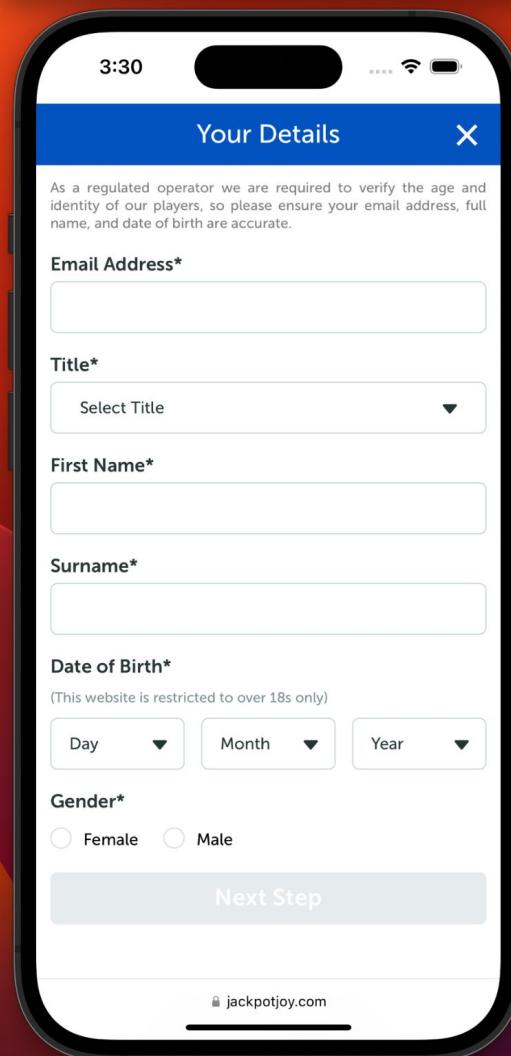
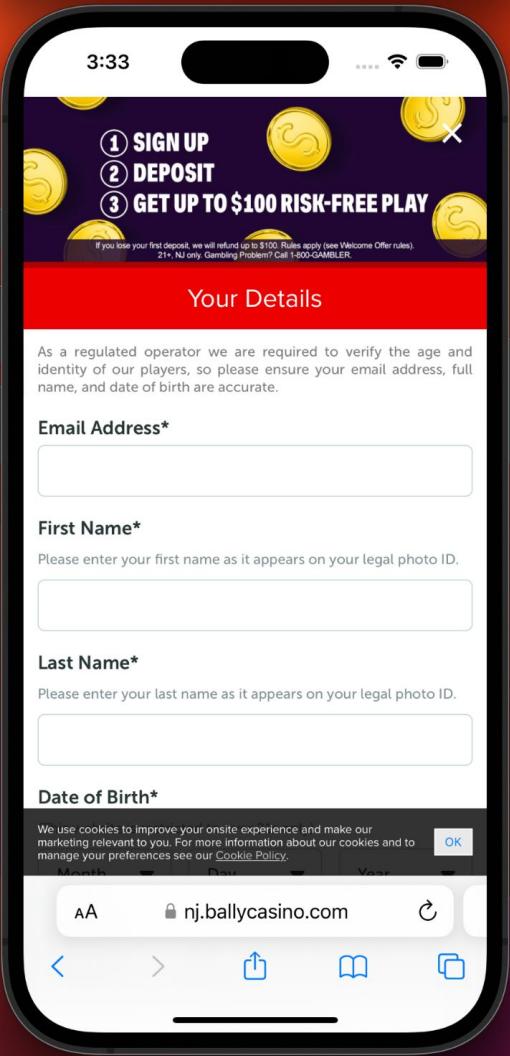
44
Step 3 - load

30
Step 3 - submit

....

....

....



A wide-angle photograph of a coastal landscape. On the left, a steep, rocky cliff drops into a deep blue sea. The water is calm, reflecting the light. To the right of the cliff, there's a mix of green fields and more rocky terrain. In the far distance, a range of hills or mountains is visible under a clear sky.

MEASURING IS HARD

BET-COST MATRIX

A 5x5 matrix to help with assessing stories & epics.

What would you bet that epic/story X has value for the user? *2

How much will it cost to implement epic/story X? *1

*1 Company money
*2 Your money



- [Green square] Build it
- [Light Blue square] prototype & test and break down
- [Red square] do more research to understand users & context



THE XMAS BACKLOG





```
{  
  "referafriend":  
    "/api/content/banners/banner-microapp/virgingames-RAF-banner.jpeg",  
  "default":  
    "/api/content/banners/banner-microapp/virgingames-RAF-banner.jpeg",  
  "/onboarding/register": {  
    "referafriend": "/api/content/banners/banner-microapp/registration-page-A.jpg",  
    "default": "/api/content/banners/banner-microapp/registration-page-A.jpg"  
  },  
  "/onboarding/first-deposit": {  
    "demoBannerKey": "/api/content/DFG-Banners/tile-60-dfg-banner-2-assets/scale-2/tile-60-444.jpg",  
    "referafriend": "/api/content/banners/banner-microapp/virgingames-RAF-banner.jpeg",  
    "default": "/api/content/banners/banner-microapp/registration-page-A.jpg"  
  }  
}
```



THE FIRST HURDLE

Onboarding

Backend for Frontend

Experiment / Launchdarkly

```
● ● ●

const user: LDClient.LDUser = {
    key: param.memberId,
    custom: {
        jurisdiction: param.jurisdiction ?? '',
        venture: param.venture ?? '',
        ballyEnv: param.ballyEnv ?? ''
    }
};

// ...

const variant = client.variation(
    'tech-11111-excite-onboarding-bannerconfig',
    ''
);

// ...

client.track('REGISTER_COMPLETE');
```

EXCITE-ONBOARDING
PRODUCTION

Feature flags

Contexts New

oxa unicorn

Segments

Targeting

Workflows

Insights

Experiments

Variations

History

Code references

Links

Settings

Experiments

Live events New**Targeting**(•) Evaluated 17 seconds ago
◆ Currently serving EMPTY

Review and request approval

Audit log

Integrations

Account settings

Prerequisites ⓘ[+ Add prerequisites](#)**Individual targets** ⓘ[+ Add individual targets](#)**Rules** ⓘ

Rule 1



user



venture



is not one of



jackpotjoy



SERVE

◆ EMPTY

[Add rule](#)**Default rule**

Select flag*

These variations are based on the flag: [\(i\)](#)

[-bannerconfig](#)  ON

◆ Variation 1

Value:

```
{}
```

Name: EMPTY

Description: None

◆ Variation 2

Value:

```
{
  "default": "/api/content/banners
/banner-microapp/05-11-2020
/jackpotjoy-mvt-banner1.jpg"
}
```

Name: banner 1

Description: None

◆ Variation 3

Value:

```
{
  "default": "/api/content/banners
/banner-microapp/05-11-2020
/jackpotjoy-mvt-banner2.jpg"
}
```

Name: banner 2

Description: None

EXCITE-ONBOARDING
PRODUCTION

Feature flags

Contexts

New

Segments

Experiments

Live events

New

Audit log

Integrations

Account settings

[Experiments](#) / Create experiment

Create experiment

Cancel

1 Experiment details

* Required field

Name*

Hypothesis*

Experimenting onboarding journey with banner either visible or not visible to determine if conversion rates are positively affected by the banner

Randomization unit*

The context kind that will be randomly assigned to each variation

 user[Next](#)

2 Select metrics

3 Choose flag variations

EXCITE-ONBOARDING
PRODUCTION

Feature flags

Users

Segments

Experiments

Debugger

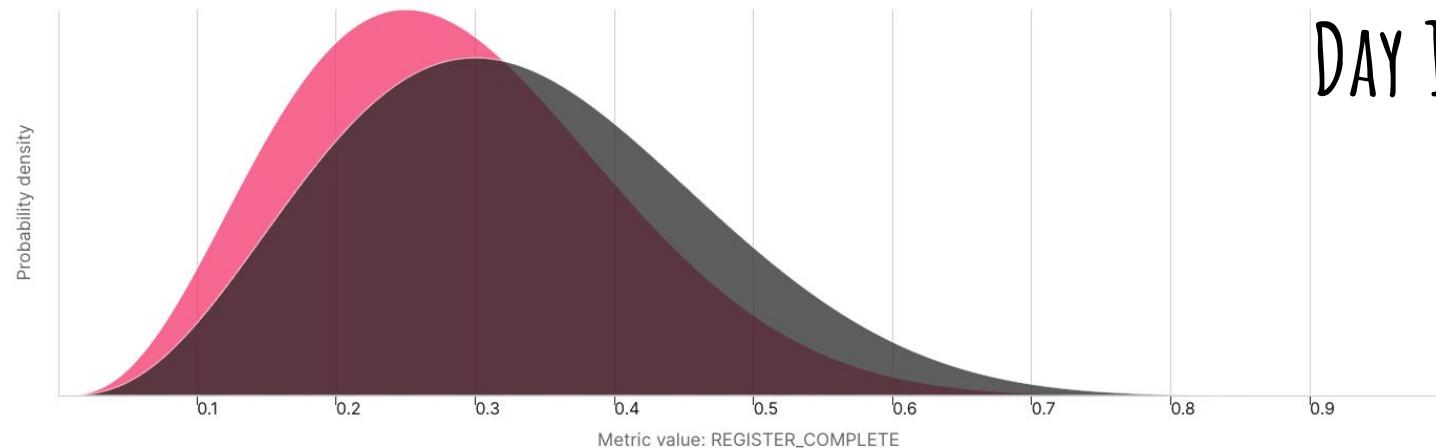
Audit log

Integrations

Account settings

REGISTER_COMPLETE Custom conversion

registration module completed on oxa

This metric received an event for this iteration 3 minutes ago.View metric event values per unique user as: Average Sum ♦ JPJ - Empty Image ♦ JPJ - Standard Offer

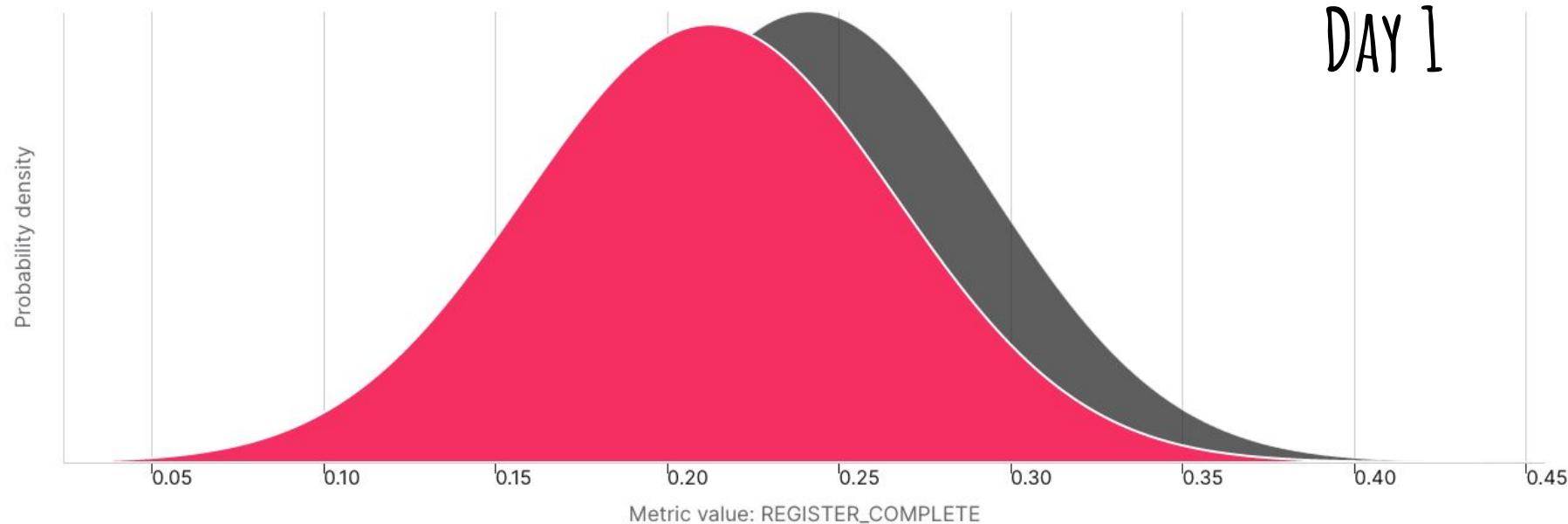
Variation	Probability to be best	Relative difference from EMPTY	Credible interval: 90%	Posterior mean
♦ JPJ - Empty Image	40%		[100.00%, 100.00%]	[15.11%, 51.56%]
◆ JPJ - Standard Offer	60%		[100.00%, 100.00%]	[17.65%, 57.35%]

REGISTER_COMPLETE

Custom: conversion

registration module completed on oxa

This metric received an event for this iteration 9 minutes ago.

View metric event values per unique user as: Average Sum
  JPJ - Empty Image  JPJ - Standard Offer


Variation	Probability to be best	Relative difference from EMPTY	Credible interval: 90%	Posterior mean
 JPJ - Empty Image	33%	[100.00%, 100.00%]	[0.15, 0.30]	0.21
 JPJ - Standard Of...	67%	[100.00%, 100.00%]	[0.18, 0.33]	0.24

Feature flags

Users

Segments

Experiments

Debugger

Audit log

Integrations

Account settings

REGISTER_COMPLETE

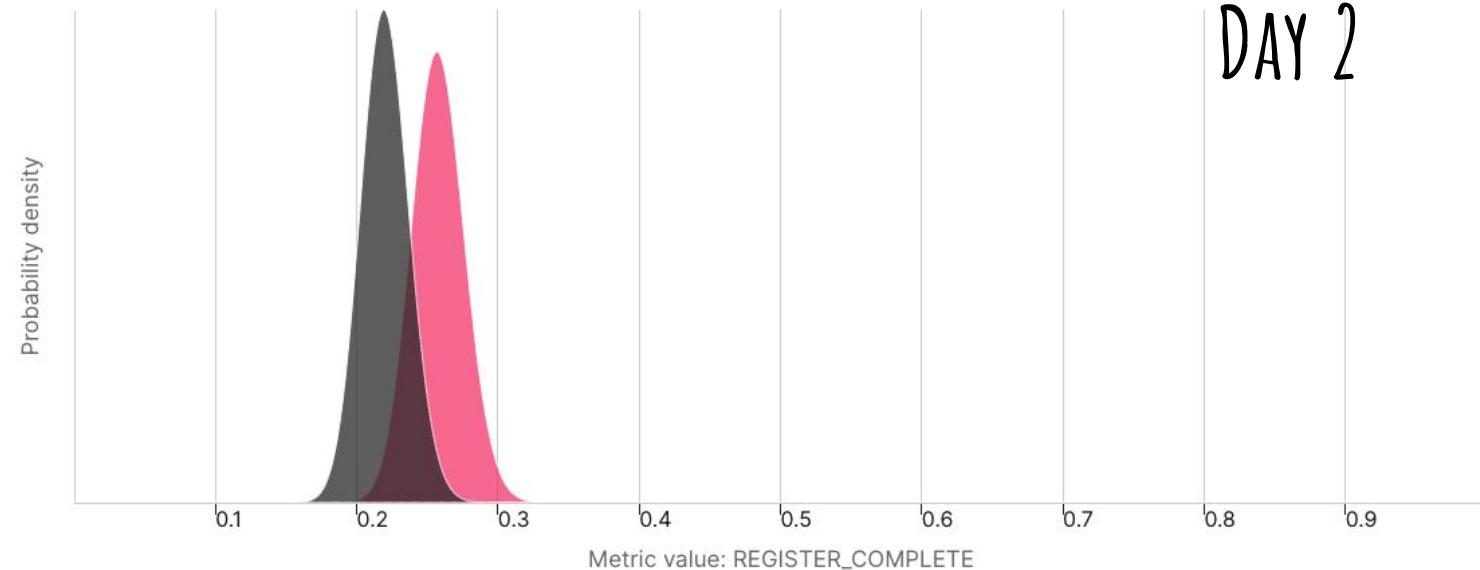
 Custom: conversion

registration module completed on oxa

🕒 This metric received an event for this iteration 7 minutes ago.

View metric event values per unique user as: Average Sum ♦ JPJ - Empty Image ♦ JPJ - Standard Offer

DAY 2



Variation	Probability to be best	Relative difference from EMPTY	Credible interval: 90%	Posterior mean
♦ JPJ - Empty I...	94%	[100.00%, 100.00%]	[22.90%, 28.98%]	25.77%
◆ JPJ - Standar...	6%	[100.00%, 100.00%]	[19.42%, 24.99%]	22.02%

Feature flags

Users

Segments

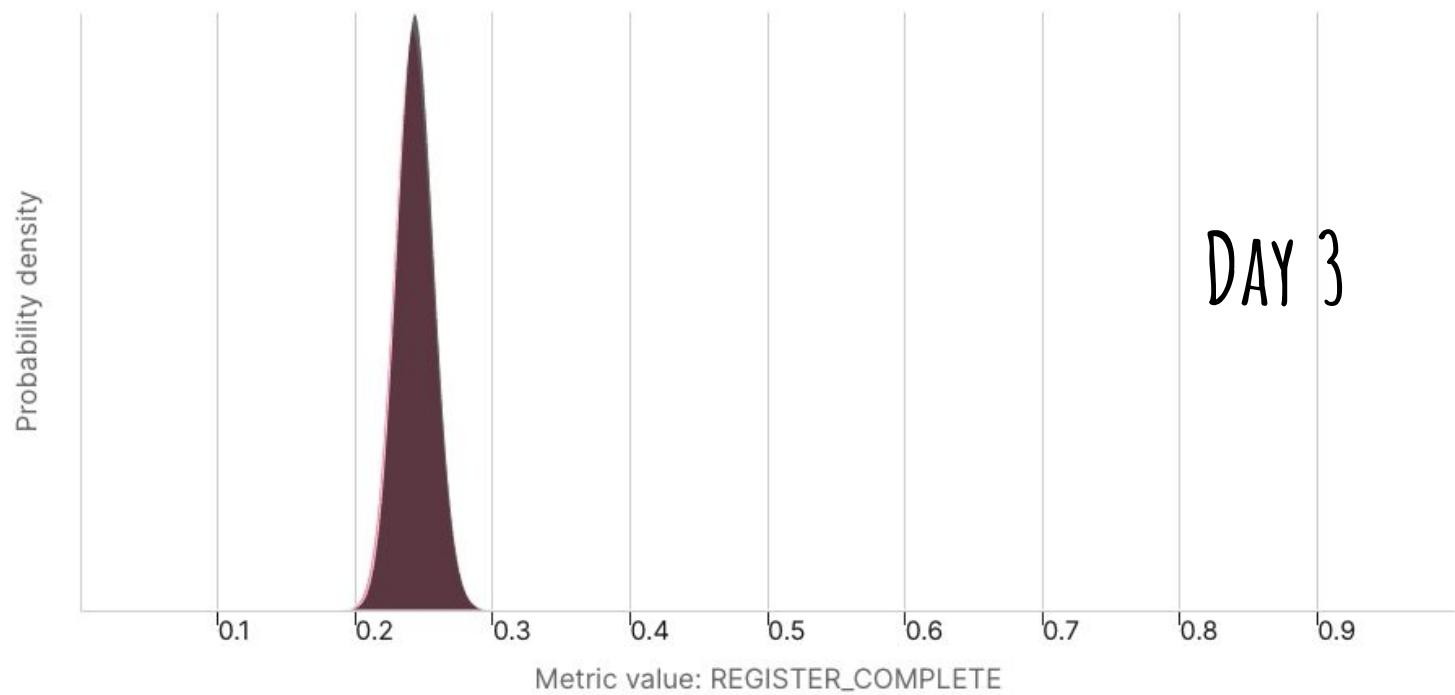
Experiments

Debugger

Audit log

Integrations

Account settings



Variation	Probability to be best	Relative difference from EMPTY	Credible interval: 90%	Posterior mean
◆ JPJ - Emp...	47%	[100.00%, 100.00%]	[22.04%, 26.67%]	24.24%
◆ JPJ - Sta...	53%	[100.00%, 100.00%]	[22.24%, 26.74%]	24.39%

A photograph of a tropical beach. In the foreground, there's a wooden swing suspended from a horizontal beam between two palm trees. White, sheer curtains are draped over the trees and the beam. Colorful ribbons hang from the beam. The beach is sandy and leads to a calm, light blue ocean. In the distance, a small island is visible under a clear sky.

WEEKEND

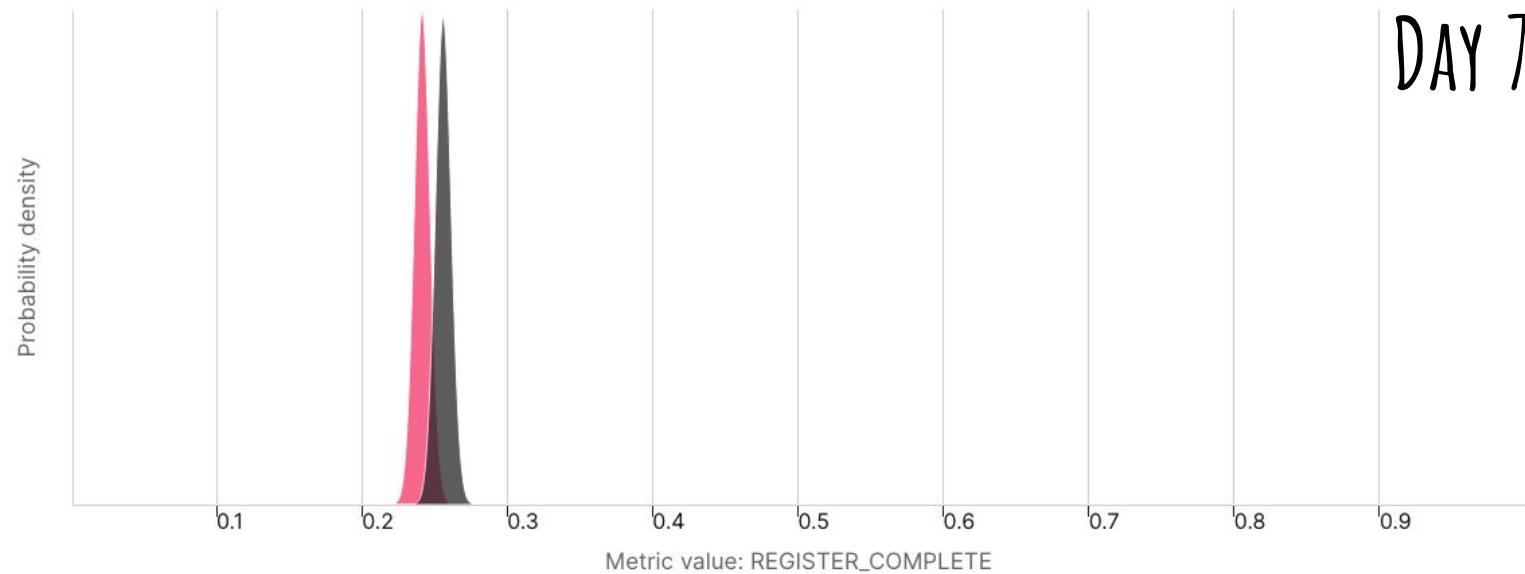
REGISTER_COMPLETE

 Custom: conversion

Primary metric

registration module completed on oxa

⌚ This metric has not received an event for this iteration in the last 24 hours.

View metric event values per unique context as: Average Sum
 ♦ JPJ - Empty Image ◆ JPJ - Standard Offer


Variation	Probability to be best	Relative difference from EMPTY	Credible interval: 90%	Posterior mean
♦ JPJ - Empty Im...	3%	[100.00%, 100.00%]	[23.29%, 25.07%]	24.16%
◆ JPJ - Standard...	97%	[100.00%, 100.00%]	[24.72%, 26.53%]	25.61%



< >

Q Search

...



Activity



1

Chat



0

Teams



Calendar

...



Apps

media team saw an increase in immediate rates (registrants that become p2p on the same day)

the feedback from marketing teams were very positive, in fact they wanted to skip iterating the same test on other ventures and moving straight to implementation

so I'd say 200% positive 😊

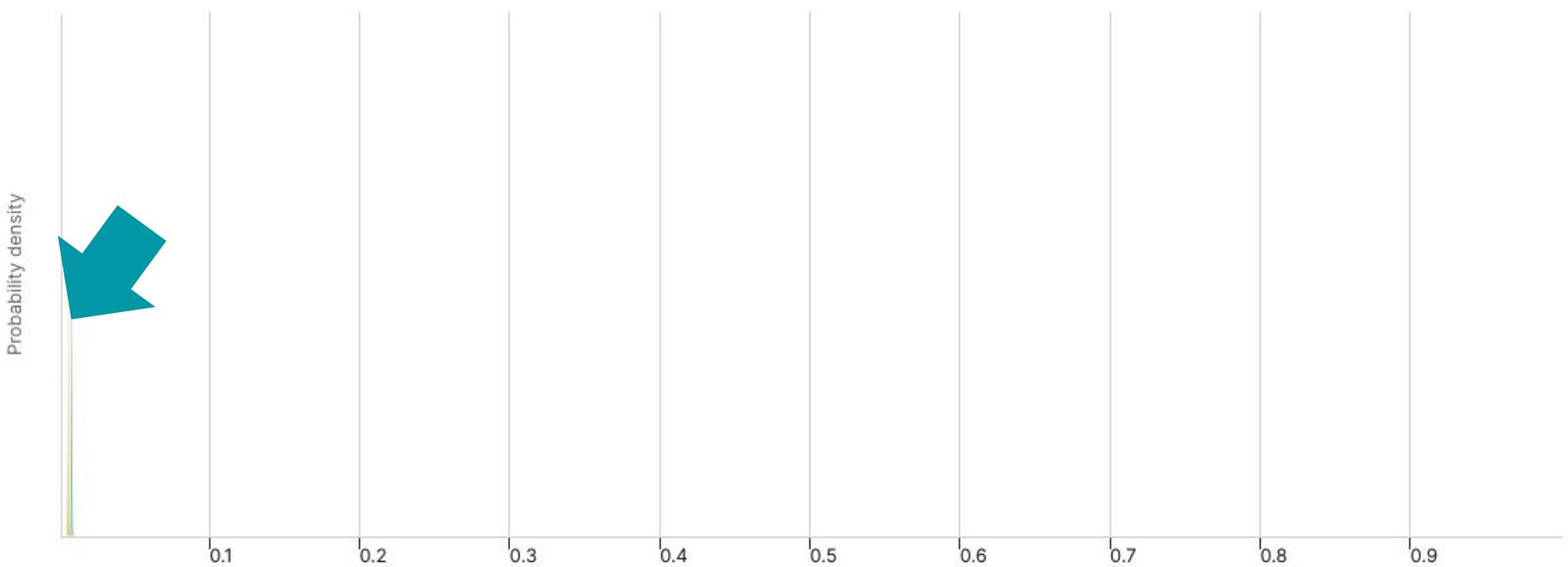


Help

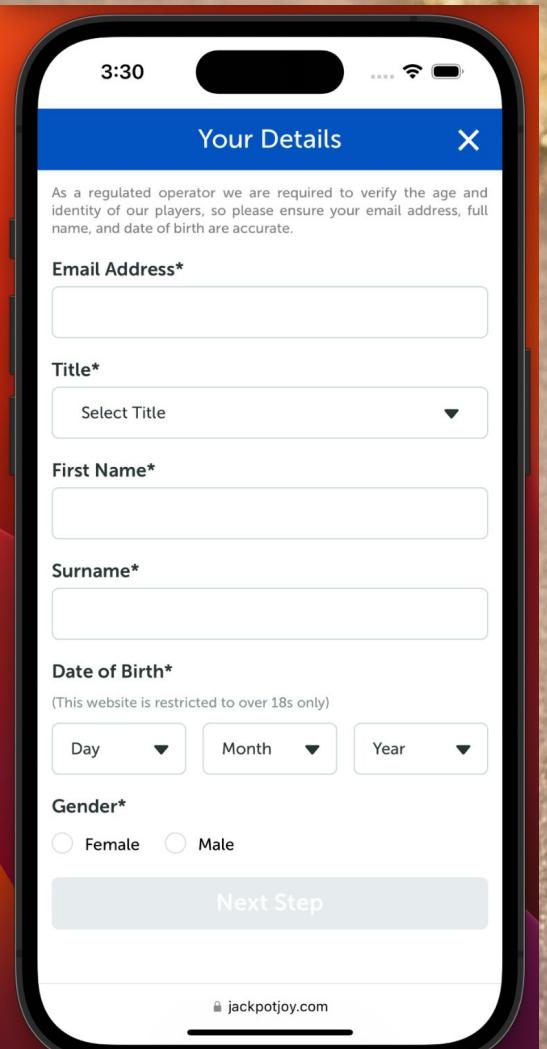


A photograph of a young child with short brown hair, seen from behind, walking away on a paved path. The child is wearing a white long-sleeved dress with small pink spots and a small pink bow at the back of the neck. They are also wearing white leggings and light-colored shoes. The path is flanked by green grass and small white flowers. In the top left corner of the image, there is a large, semi-transparent white text overlay that reads "BABY STEPS".

BABY STEPS



Variation	Probability to be best	Relative difference from Variation One	Credible interval: 90%	Posterior mean
◆ Variation One	>99%	0	[0.75%, 0.82%]	0.79%
◆ Variation Two	<1%	[-25.79%, -17.67%]	[0.58%, 0.65%]	0.61%



A/B Testing vs. Multi-Armed Bandit Algorithm

- A/B Testing



- MAB Algorithm



■ High Value

■ Medium Value

■ Low Value



3904

PO

PM



**“You’re almost always
wrong about your users.”**

Manik Rathee
Google Senior Staff UX Engineer, UX & Engineering
Manager

THANK YOU
THANK YOU

Gábor Csomák
@donkeycoder

Questions please

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