aws SUMMIT

Personalization of a News Portal

Dr. Christian Essling

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About myself

- Economist with a PhD in Strategy in Digitalization
- Advised companies on building their own data labs during previous job
- Founder of the Munich Datageeks e.V.
- Joined BurdaForward in 2016 to build the analytics department
- Huge fan of fast cars with valve-controlled exhausts

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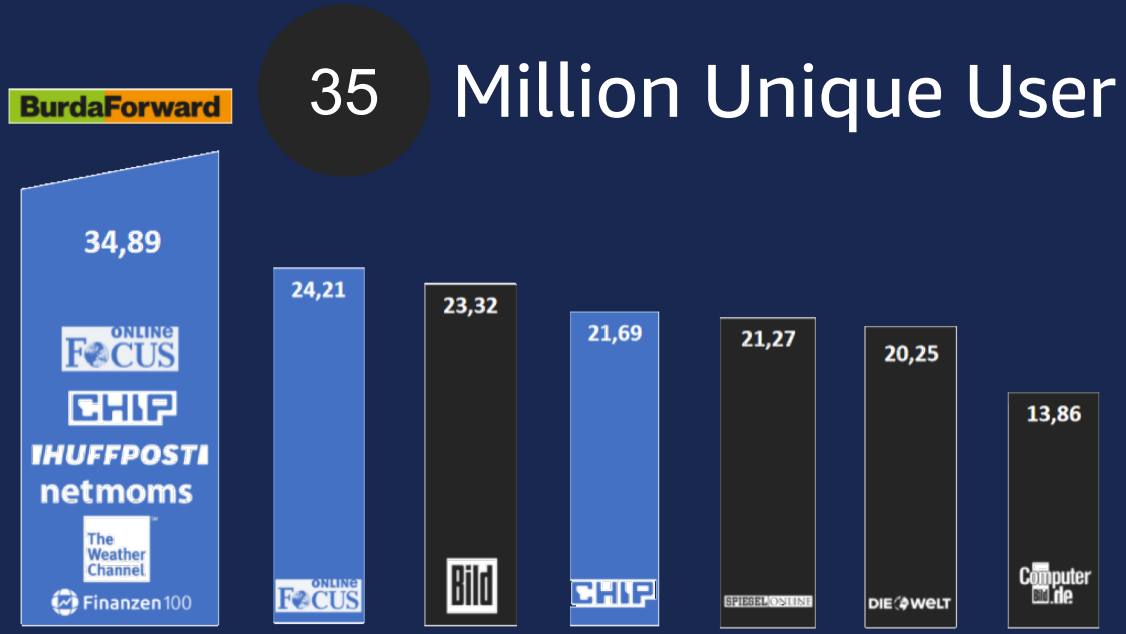
What is BurdaForward?



*Quelle: AGOF e.V./ daily digital facts 2018-01, Einzelmonat (Januar 2018), Grundgesamtheit 10+

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Previously, we told the user what's interesting.

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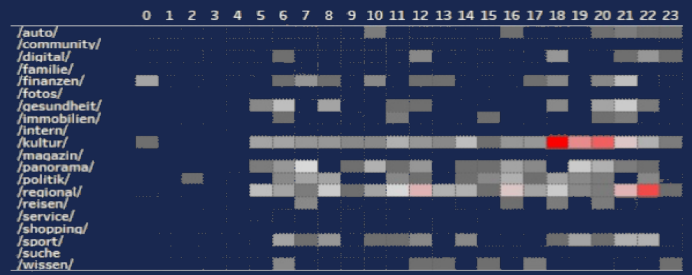
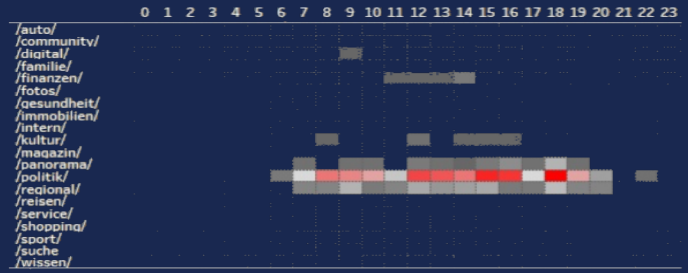
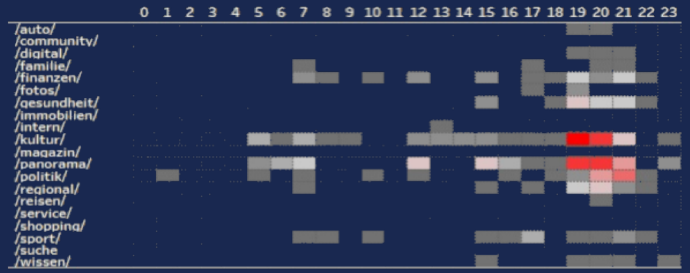
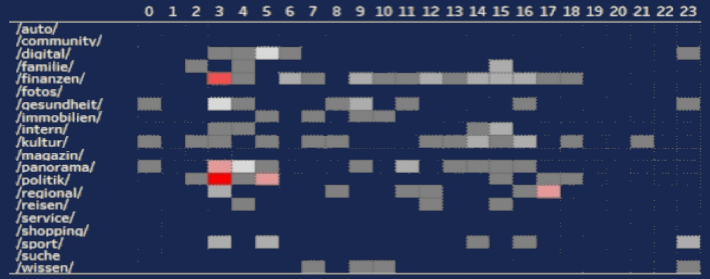
However, every user is different.









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The architecture needs to orchestrate different processes before personalization is possible.

Editors publish an article

What's the article about?

Do we know this content?

How long can we recommend it?

What topics has the user been reading?

Calculate preferences

Blending of relevant articles

Superfast execution

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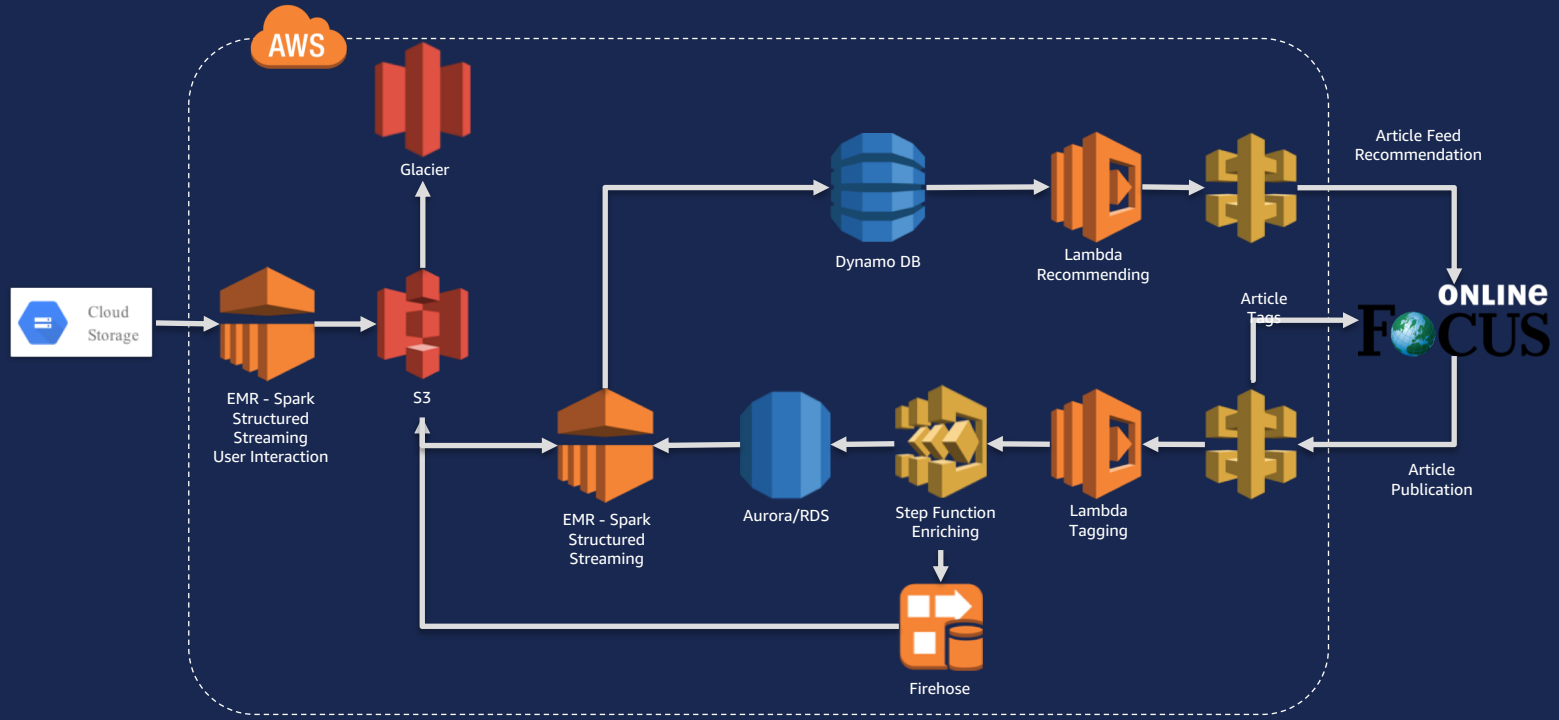
The architecture comprises of 9 different AWS services.



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Tagging makes text quantifiable.

1. Abgeordneter | tag
2. AfD | entity
3. Bundestag | entity
4. Nachrichtendienst | entity
5. Roman Reusch | person
6. Deutschland | geography
7. Antisemitismus | tag

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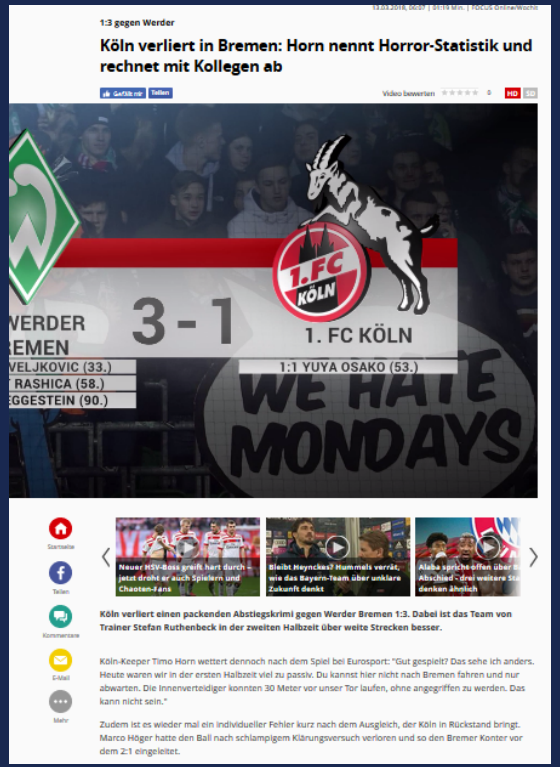
We check whether we already know this news.



1:3 gegen Werder

Köln verliert in Bremen: Horn nennt Horror-Statistik und rechnet mit Kollegen ab

Gefällt mir | Teilen | Video bewerten | HD | SD

WERDER BREMEN 3 - 1 1. FC KÖLN

VELJKOVIC (33.)
RASHICA (58.)
EGGESTEIN (90.)

1:1 YUYA OSAKO (53.)

WE HATE MONDAYS

Startseite | Teilen | Kommentare | E-Mail | Mehr

Neuer HSV-Boss greift hart durch – jetzt droht er auch Spielern und Chaoten-Fans

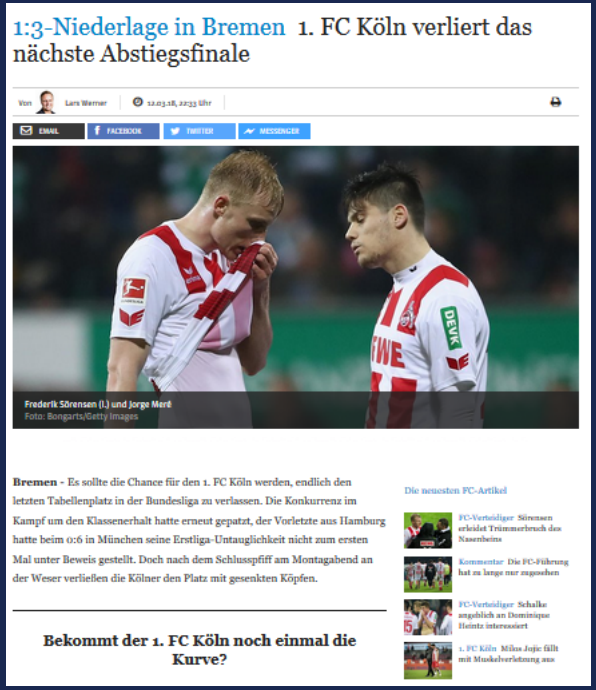
Bleibt Heynckes? Hummels verrät, wie das Bayern-Team über unklare Zukunft denkt

Alaba spricht offen über Abschied – drei weitere Stars denken ähnlich

Köln verliert einen packenden Abstiegskrimi gegen Werder Bremen 1:3. Dabei ist das Team von Trainer Stefan Ruthenbeck in der zweiten Halbzeit über weite Strecken besser.

Köln-Keeper Timo Horn wettert dennoch nach dem Spiel bei Eurosport: "Gut gespielt? Das sehe ich anders. Heute waren wir in der ersten Halbzeit viel zu passiv. Du kannst hier nicht nach Bremen fahren und nur abwarten. Die Innenverteidiger konnten 30 Meter vor unser Tor laufen, ohne angegriffen zu werden. Das kann nicht sein."

Zudem ist es wieder mal ein individueller Fehler kurz nach dem Ausgleich, der Köln in Rückstand bringt. Marco Höger hatte den Ball nach schlampigem Klärungsversuch verloren und so den Bremer Konter vor dem 2:1 eingeleitet.



1:3-Niederlage in Bremen 1. FC Köln verliert das nächste Abstiegsfinale

Von Lars Werner | 12.03.18, 22:33 Uhr

EMAIL | FACEBOOK | TWITTER | MESSENGER

Frederik Sörensen (l.) und Jorge Meré
Foto: Bongarts/Getty Images

Bremen - Es sollte die Chance für den 1. FC Köln werden, endlich den letzten Tabellenplatz in der Bundesliga zu verlassen. Die Konkurrenz im Kampf um den Klassenerhalt hatte erneut gepatzt, der Vorletzte aus Hamburg hatte beim 0:6 in München seine Erstliga-Untauglichkeit nicht zum ersten Mal unter Beweis gestellt. Doch nach dem Schlusspfiff am Montagabend an der Weser verließen die Kölner den Platz mit gesenkten Köpfen.

Bekommt der 1. FC Köln noch einmal die Kurve?

Die neuesten FC-Artikel

FC-Verteidiger Sörensen erleidet Trümmerbruch des Nasenbeins

Kommentar Die FC-Führung hat zu lange nur zugesehen

FC-Verteidiger Schalke angeblich an Dominique Heintz interessiert

1. FC Köln Mikas Jojic fällt mit Muskelverletzung aus

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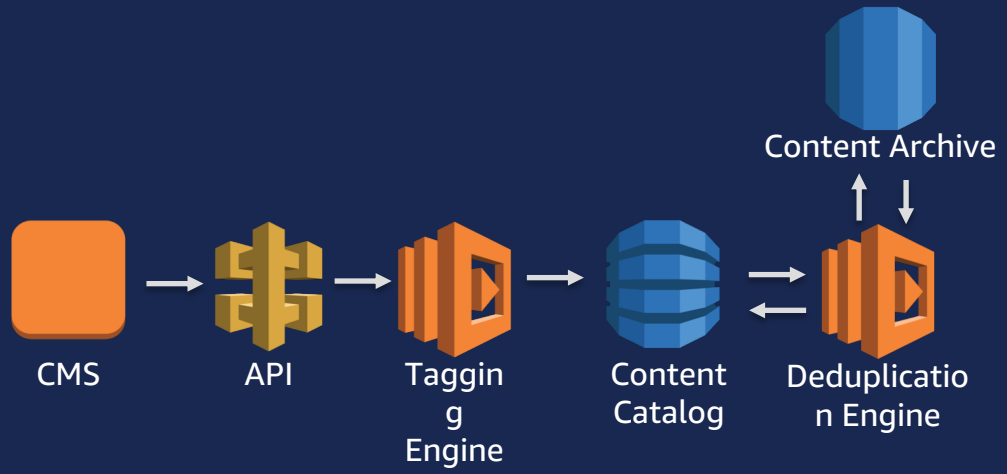
Tagging and Deduplication Architecture



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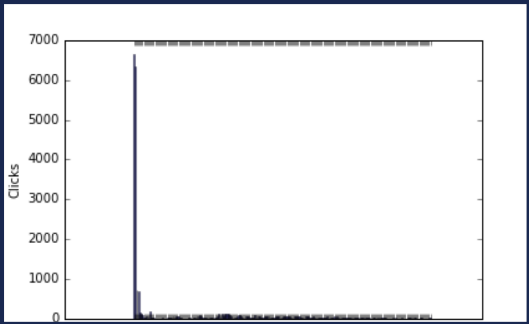
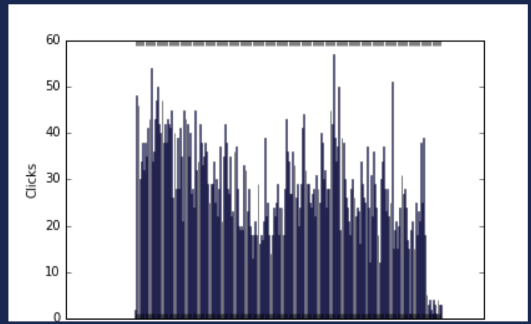
Articles have varying dates of expiry.





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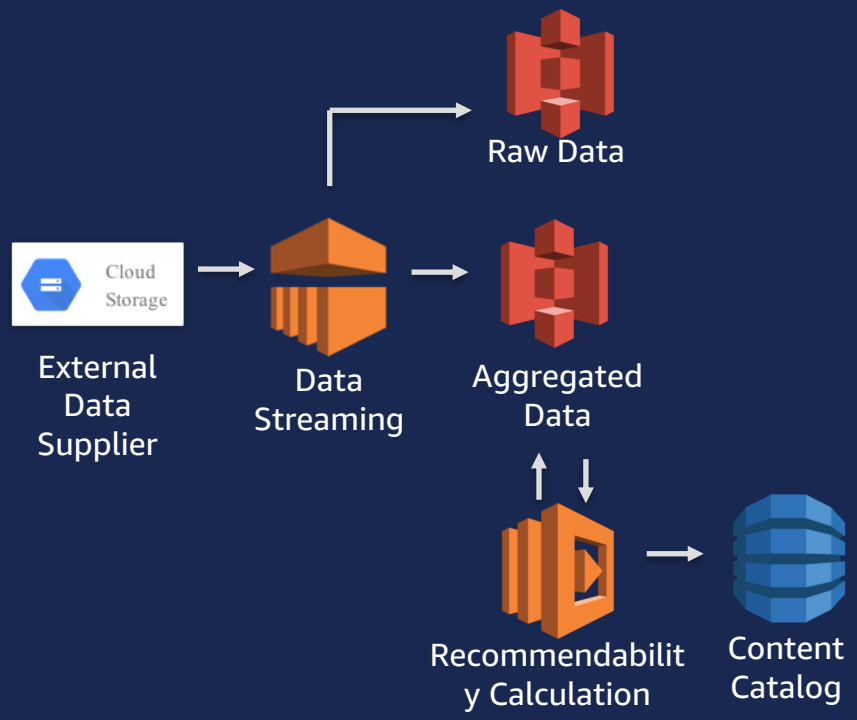
Article Recommendability Architecture



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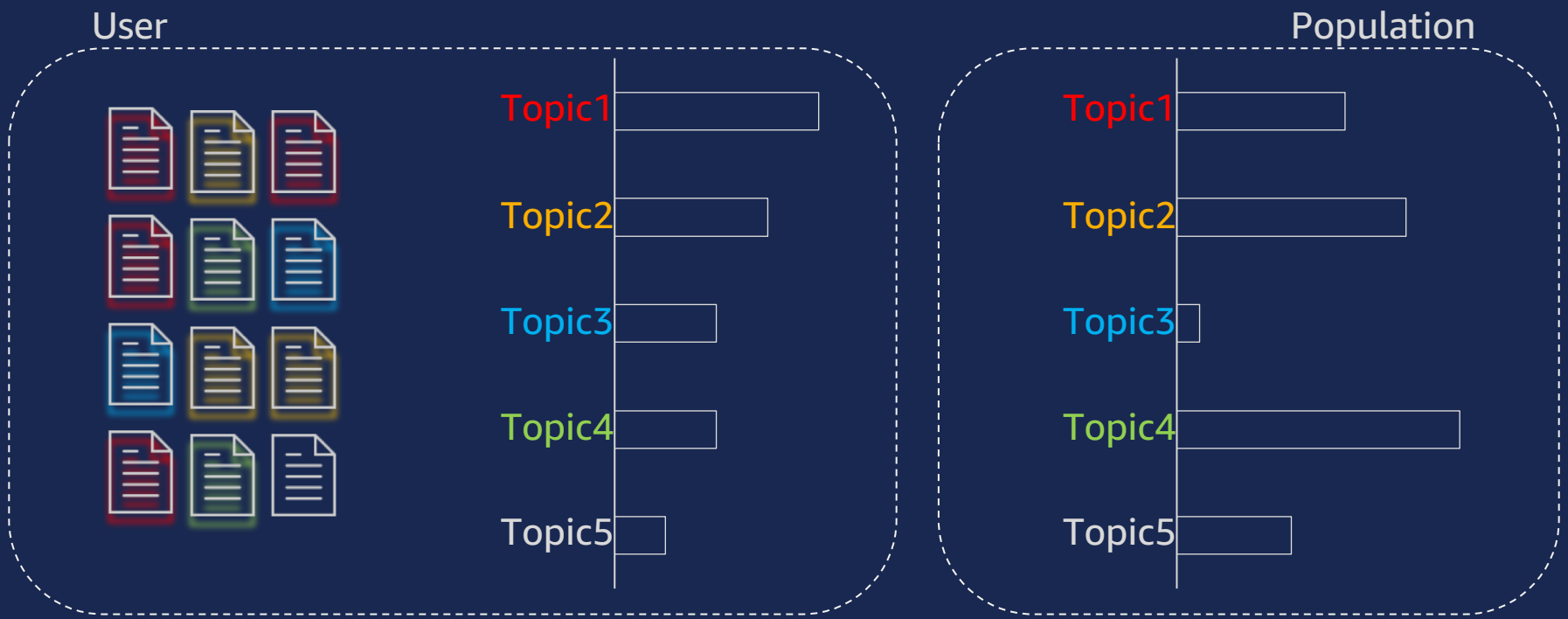
Recommended topics are derived from personal preferences and population interests.



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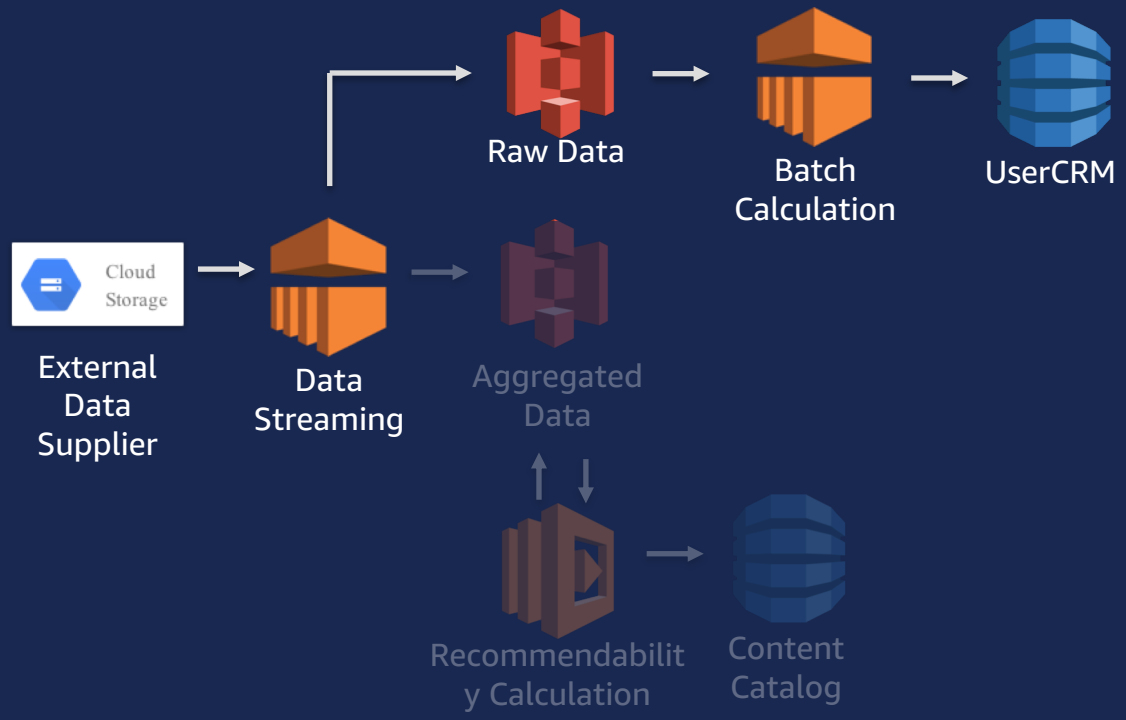
User Preferences Calculation Architecture



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It requires a mixture of different topics in order to make it interesting, relevant, and filter bubble free.

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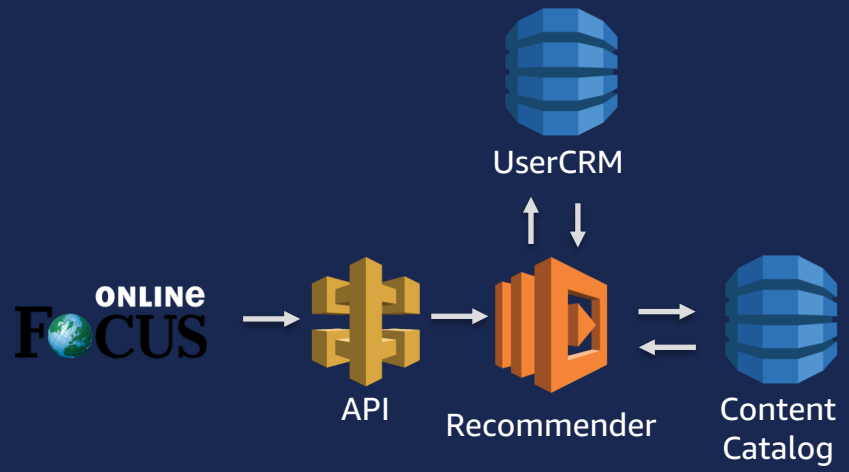
Recommendation Architecture



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An A/B-Test was designed to test the algorithm.

- FOCUS Homepage
- One teaser slot
- For an initial period of 3 months
- Random 50/50 split between test and control group
- CTR as the success measure

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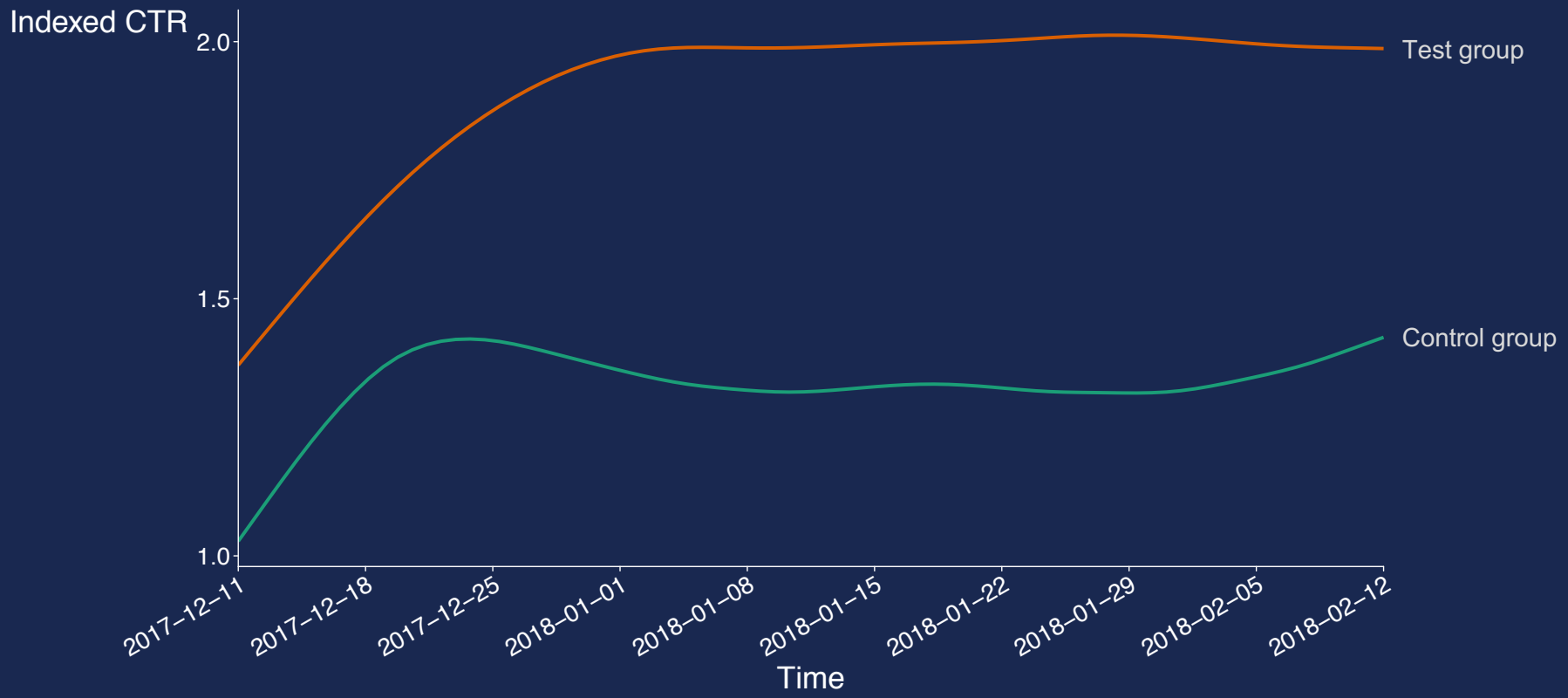
The results showed a significant uplift in CTR



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The next steps

- Managing expectations
- Second test run with broader scope
- Benchmarking different versions of the algorithm
- Improving the quasi-personalized version
- Writing a book about what we learned about managing change and transforming culture in corporations

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Thanks.

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