



How we automated our website

FEBRUARY 28, 2020 – CONFIDENTIAL – NOT FOR DISTRIBUTION



How much is automated?

At least 99 per cent of what you see on the Globe and Mail's website is placed there by an AI algorithm.



But what about clickbait?

If you focus on pageviews, you will get clickbait.

But if you examine what your readers truly value,
you won't.



Building Your Own Sophi Score



Advertiser Revenue

- Visits*
- Enagement
- Recirculation
- Advertising Value (eCPM)

Subscriber Revenue

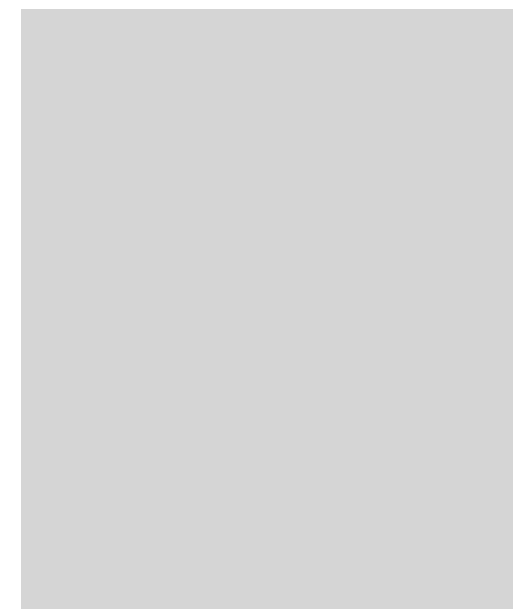
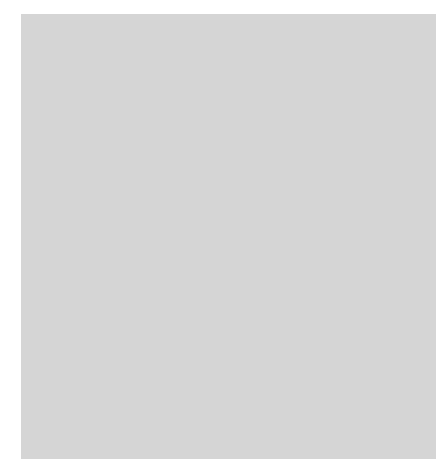
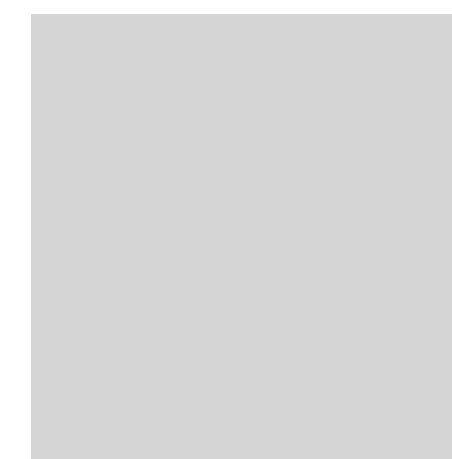
- Subscriber Acquisition* (LTV)
- Subscriber Retention (ARPU)

*Adjusted for promotion bias



Eliminating Promotion Bias

How do you compare metrics for a story at the **top** of the homepage...



...to one that spent most of the time near the bottom of the homepage?



How do we use Sophi for automation?

We asked our editors to:

- Train the algorithm
- Set parameters for it to operate within
- Slowly and carefully test and measure; gradually expand the test



For example:

 **Delphi** APP 9:43 PM ☆

 **Opposition MPs urge Morneau to extend tax proposals to family trusts** just got published and Delphi thinks it is worth promoting.

- **Section:** news/politics
- **Published at:** 2017-09-20 21:40:42
- **By:** ROBERT FIFE and STEVEN CHASE
- **Credit:** Globe and Mail Update
- **Ownership:** Staff Writer
- **Color:** red
- **Content type:** news
- **Predicted GlobeRank:** top 0.5% 🔥🔥🔥

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Do you think this article is worth promoting above the fold on the homepage (i.e. ITK and above)?

What do you think? ▼

Filter options

Yes: I will promote this now

Yes: I will promote this later

No: This is too local

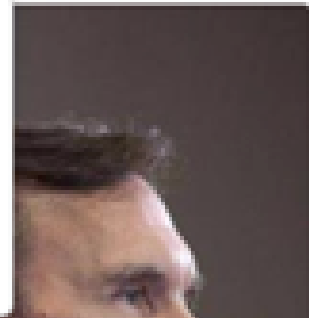
No: This is a minor development

No: This duplicates something we al...

No: This doesn't fit in a homepage c...

No: This is off-brand

end tax proposals to family trusts
t Justin Trudeau's personal wealth – inherited
held in three separate numbered corporations –
business tax proposals (74kB) ▼



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Considerations

- We have different types of widgets, and different articles. Each has its own specifications about what we can place
- We don't want the whole front page to be different articles about Trump
- News has a best-by date
- We can't show an article more than once
- We have a brand to uphold



Implementation

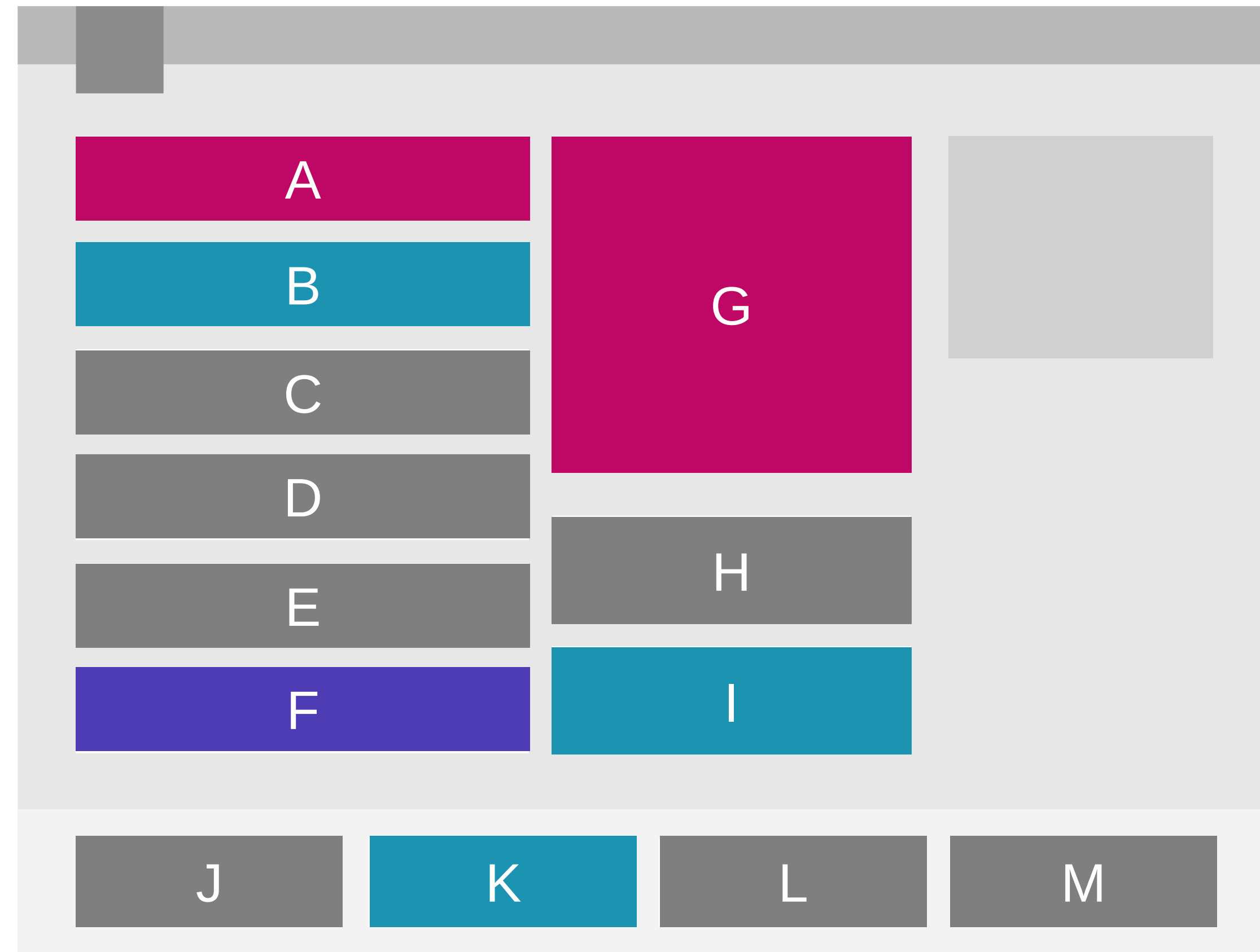
- Model written in Python
- Runs every 10 minutes to update recommendations and page
- We start with all the articles from the last 60 days (longer for videos).
- For each widget on a page, we determine whether this article could be placed in it based on a number of filters



AUTONOMOUS TOOLS

Sophi Site Automation

Sophi driven section
pages outperform
human curated pages
by a significant margin
and free up newsroom
resources so that they
can focus on finding the
next story that matters



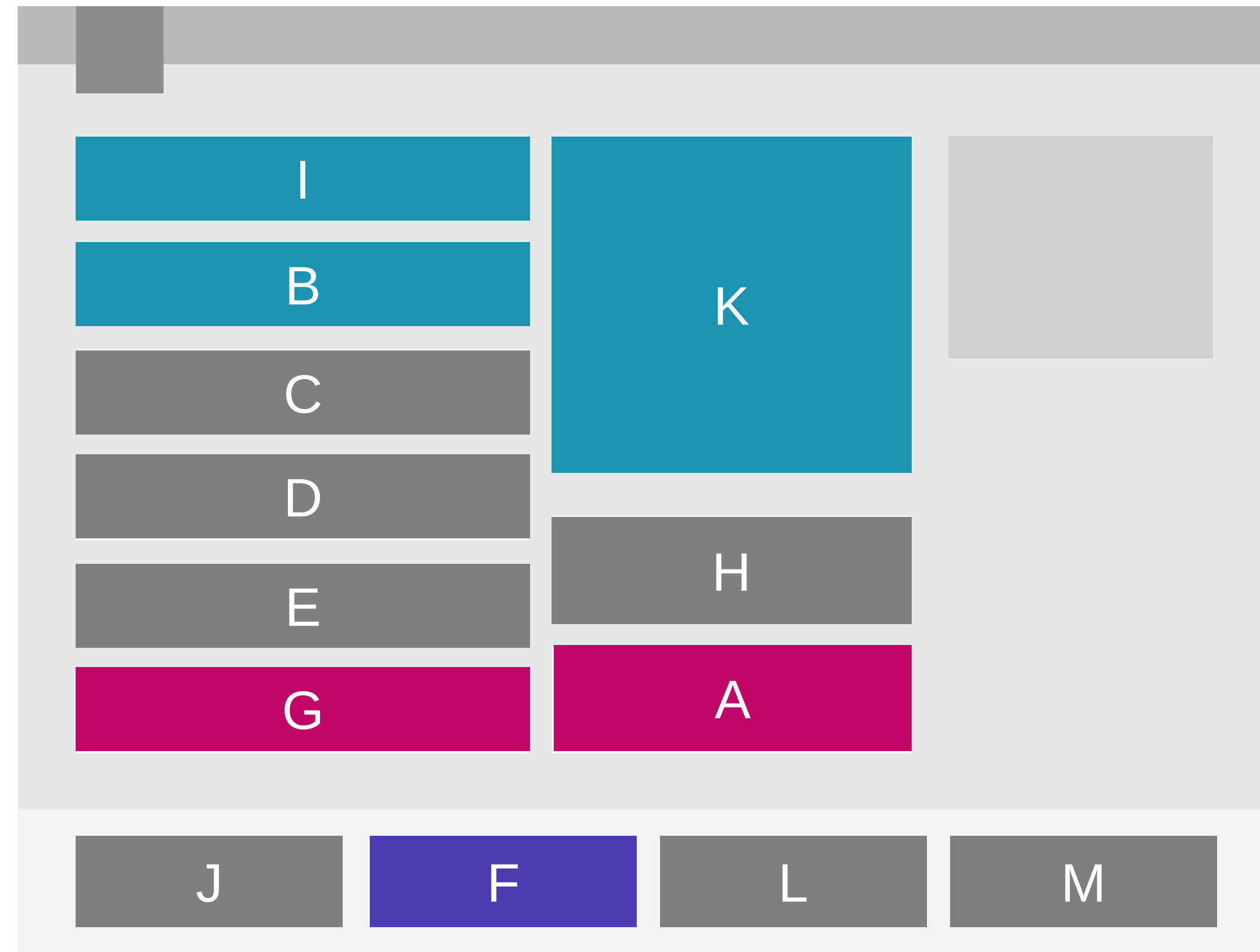
Editorial curation



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Augmented curation

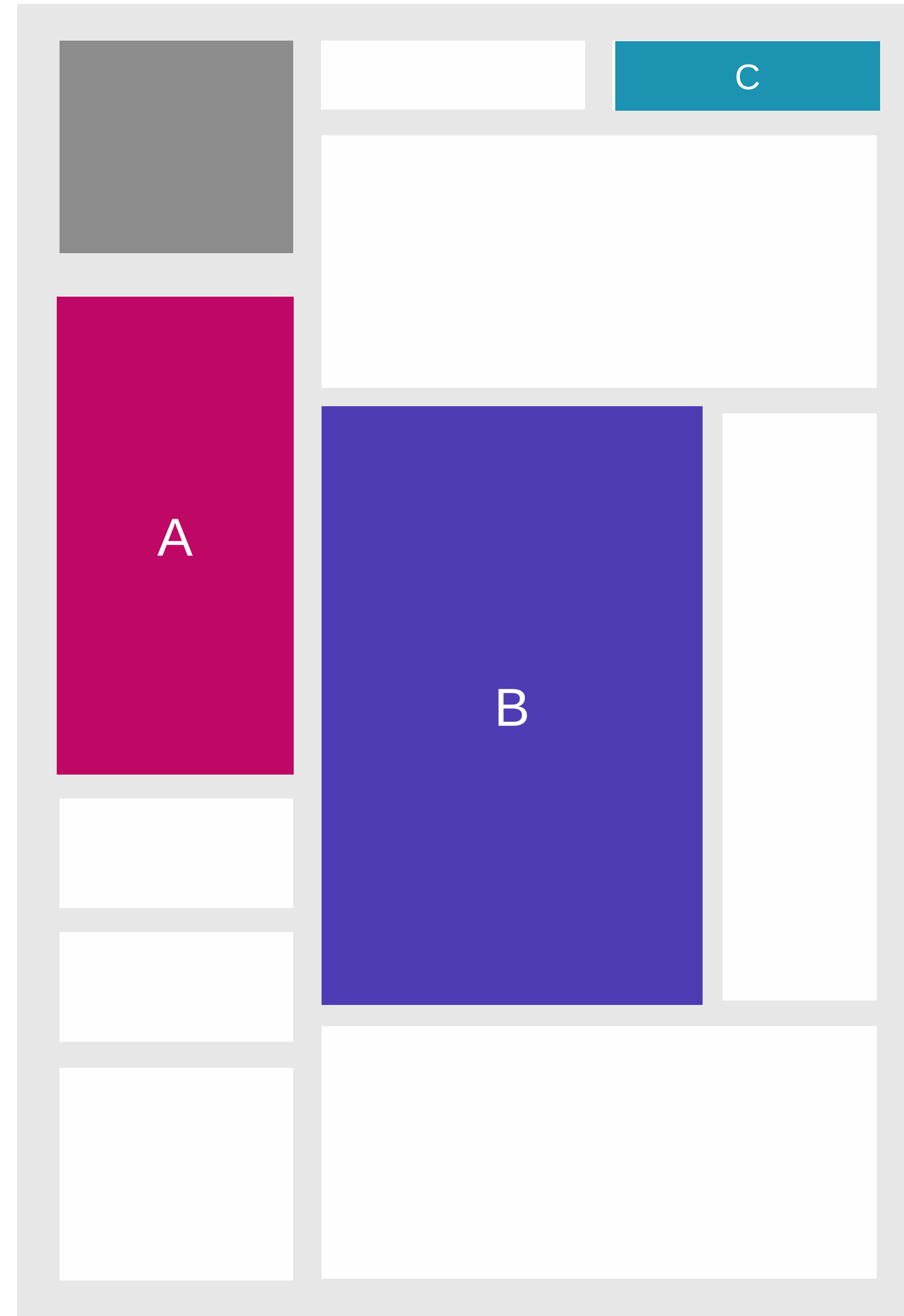


AUTONOMOUS PRODUCTS

Sophi Print Laydown

With a mix of Editorial input and Sophi scores, 2 hours of pain each day can be replaced by an automated 10-second optimization process.

If the newsroom decides to add new constraints, they can re-juggle the rest of the paper in another 10 seconds.





SONALI VERMA
SENIOR PRODUCT MANAGER, ANALYTICS
THE GLOBE AND MAIL

P: 416.585.5573

E: SVERMA@GLOBEANDMAIL.COM