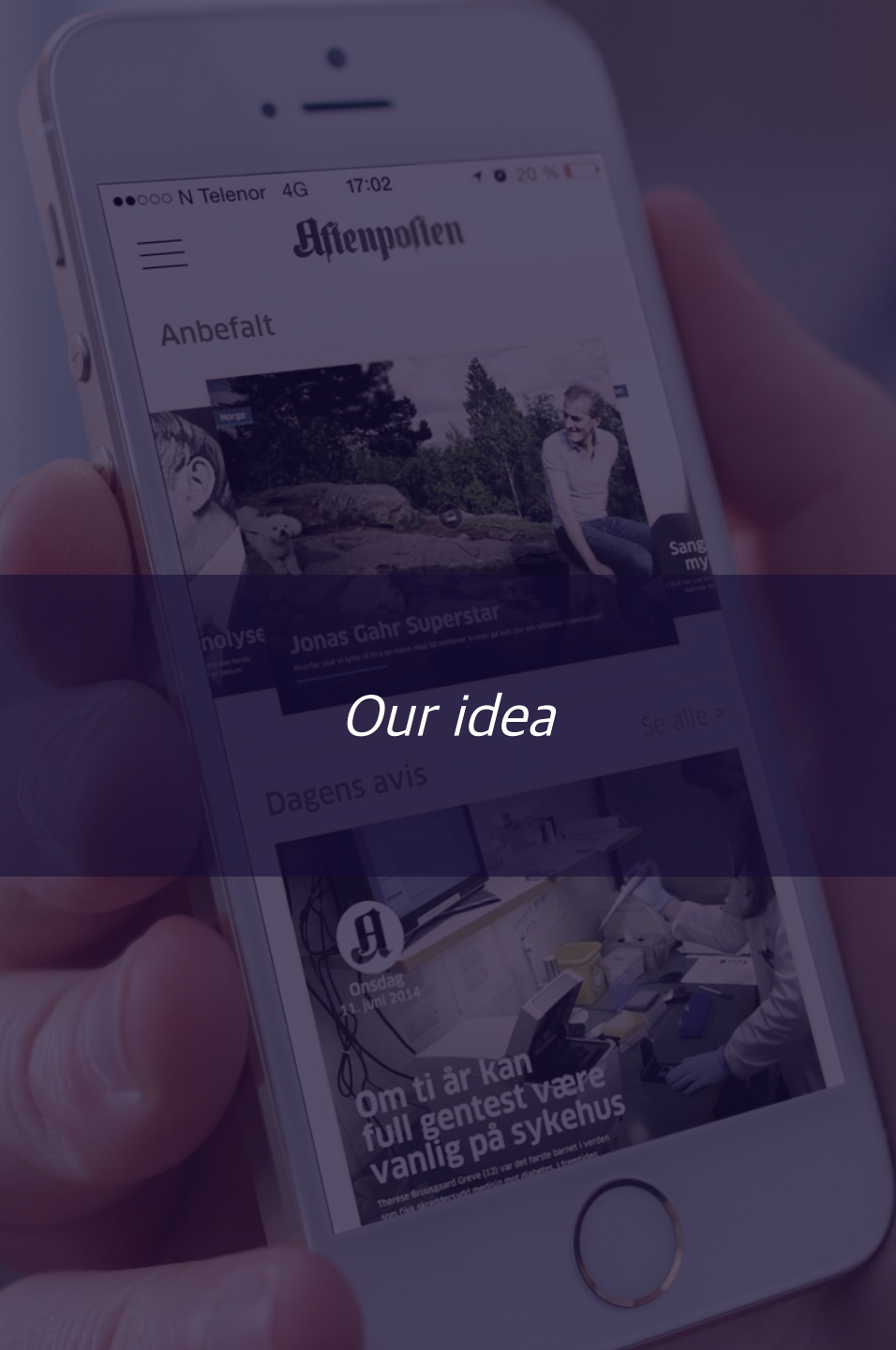


# Front Page Reinvented: The algorithm that supports our journalistic mission – and creates a smarter, more engaging and informative product

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*Our idea*

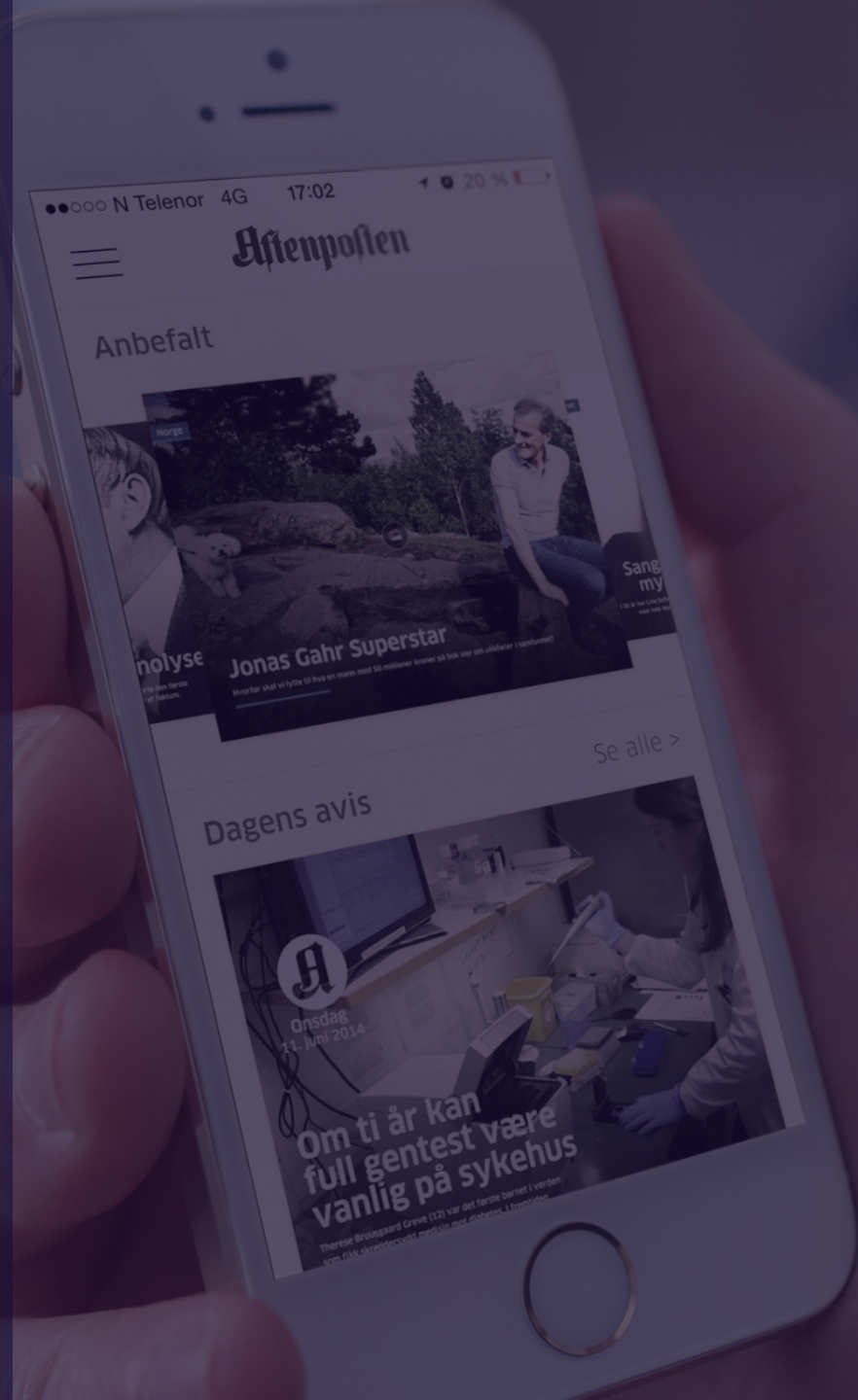




This was our starting  
point:

Every day, we aspire to  
serve hundreds of  
thousands of norwegians  
intelligent and accurate  
reporting that helps  
them participate in our  
democracy, and enables  
them to make informed  
decisions about their  
own life and their  
community.

*How are we doing?*



The answer? Most days, quite well. But our users are very different, and hence, get a very different experience at Aftenposten. Frode and Anna represents two important group of users. This is how they behave during a normal week:



Frode

2  
VISITS

15  
HEADLINES

1  
ARTICLES READ

20  
VISITS

300  
HEADLINES

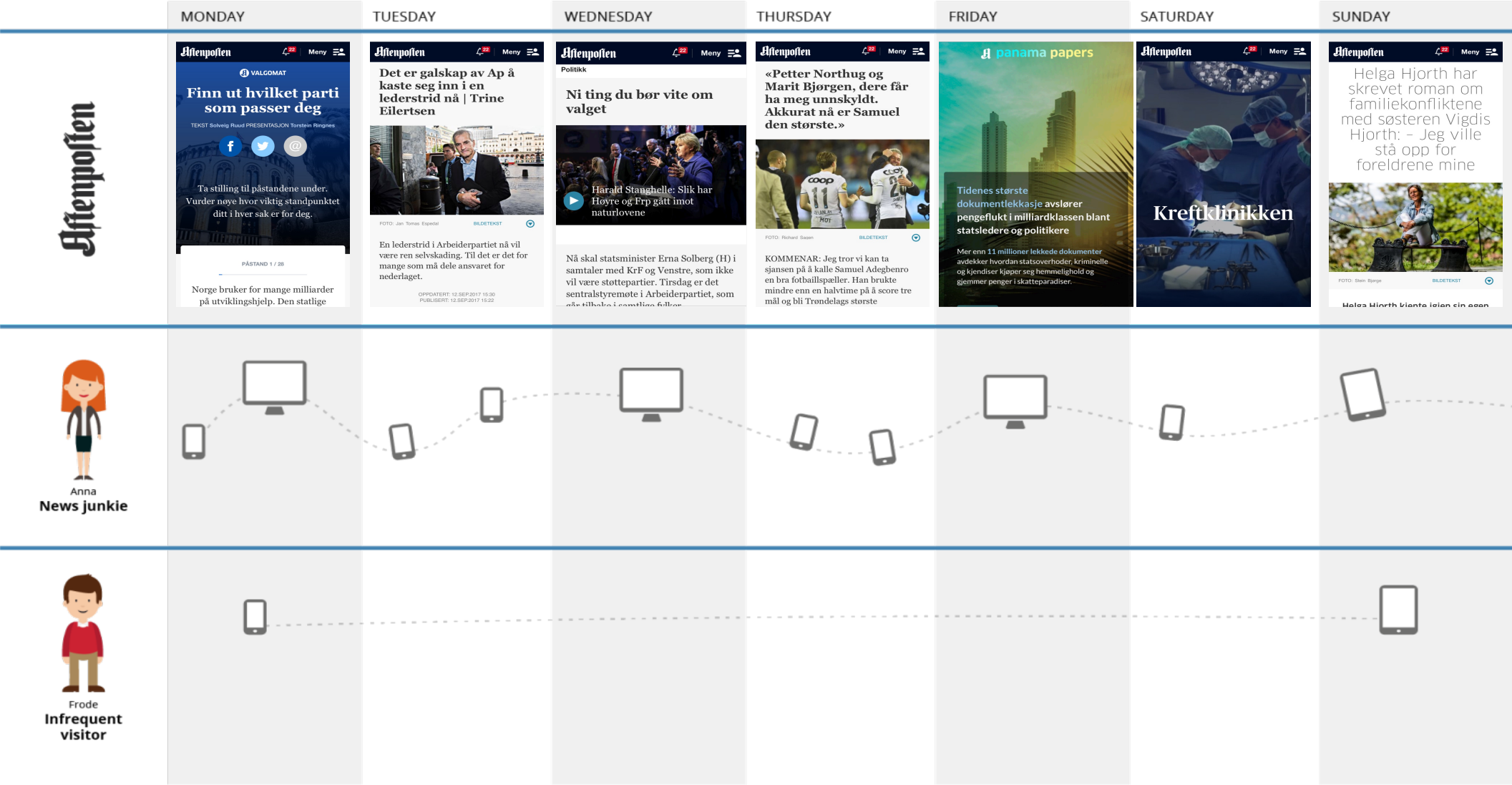
15  
ARTICLES READ



Anna



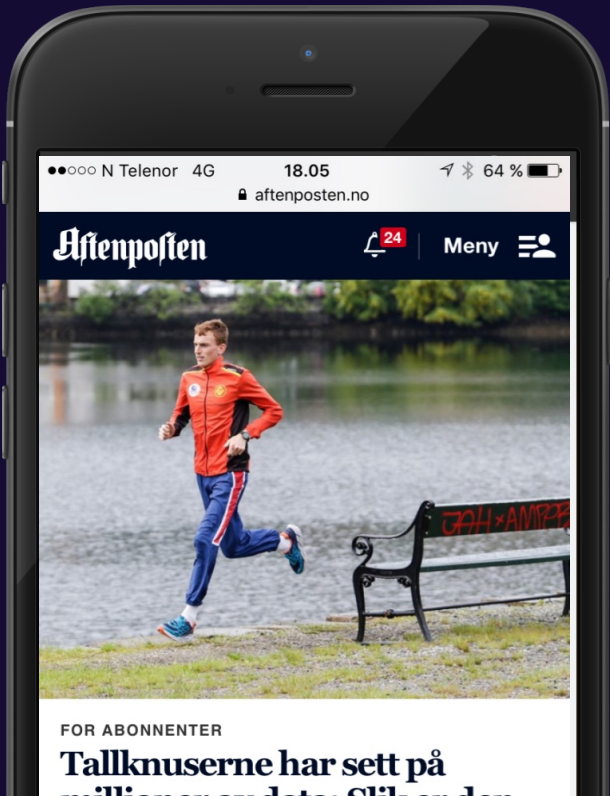
We publish important pieces of journalism every single day. But due to their different behaviour, Anna and Frode are either exposed to the same stories over and over again, or they miss the most important stories we publish



There is also a preference problem here; we should not always serve a story about running to someone who prefers a story on cooking. In order to truly deliver on our mission and live up to our aspirations, we need to make Aftenposten more relevant – and more personal.



Frode



Anna





But; we have to avoid creating so-called “filter bubbles” or “echo chambers”, always a danger when you optimize a product purely for engagement. We need to keep challenging our users, showing them stories they did not know they wanted to read.



We are choosing a different path, and we need to make sure that our users are exposed to:

- content they did not know they were interested in
- Content that surprises them
- Content that challenges them
- Etc.





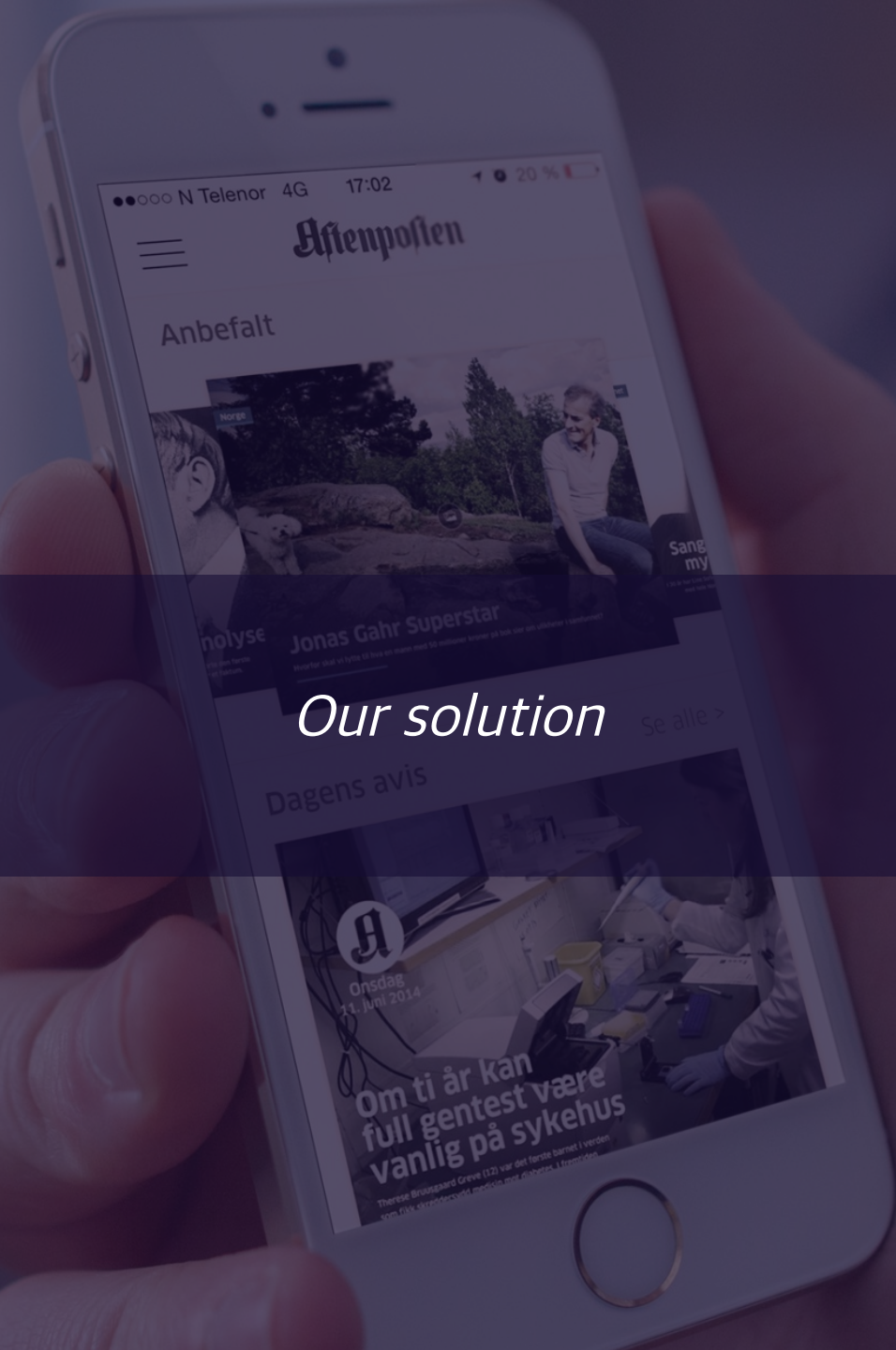
*Our challenge*





1. How do we create a more relevant front page that takes into account user frequency and preferences?
2. How do we make sure that we do not create filter bubbles or echo chambers, but instead builds an editorially guided algorithm, that is based on Aftenpostens profile and supports our journalistic mission?





*Our solution*



We make use of signals the giant platforms do not have: strong editorial signals and editorial judgement – and combine these with powerful personalization technology

Editorial signals

User behaviour  
and preferences

User behaviour  
and preferences

Aftenposten

≠



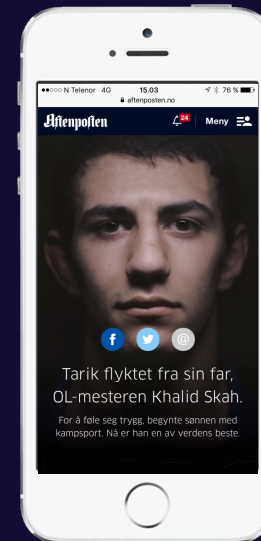


Input from our reporters and editors are crucial:

- First, they add a "news value" to every story. This should reflect how important a story is.
- Secondly, they add a "lifetime value". This should reflect how long we think a story might interest our users.
- In the end, we use these signals to create and rank our front page.



Lars



A simplified illustration of the flow from journalist to user with our new product:

After the journalist has submitted his story, the story is placed and ranked in the different categories of content that we have defined for Aftenposten, according to our editorial profile and mission.

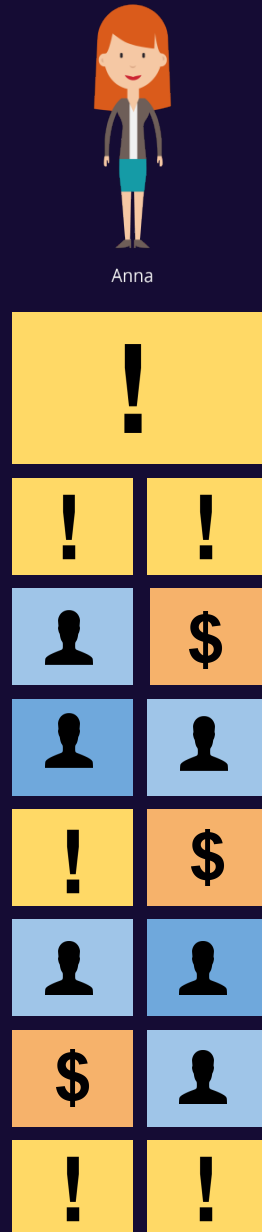
These different feeds then goes into a “blender” that ranks the front page based on a formula that consists of news value, lifetime, when the story is published, personal relevance, traffic and conversion rates.

The top 62 stories are shown to the user, here Anna.





A simplified illustration on how the new front page might be put together for the end user



! Fresh and important news stories we show everyone - or those you have missed, ranked by news value and time published

\$ Content for subscribers only, ranked by conversion rates, reading time and personal relevance

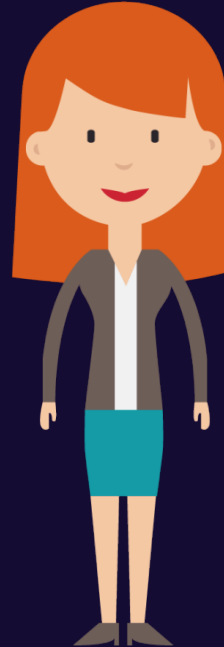
! Popular stories, mix and niches - ranked by popularity and personal relevance

# The result: More satisfied users and a more satisfied newsroom



Frode

Frode, who visits us now and then, will be more happy. And hopefully come back more often!



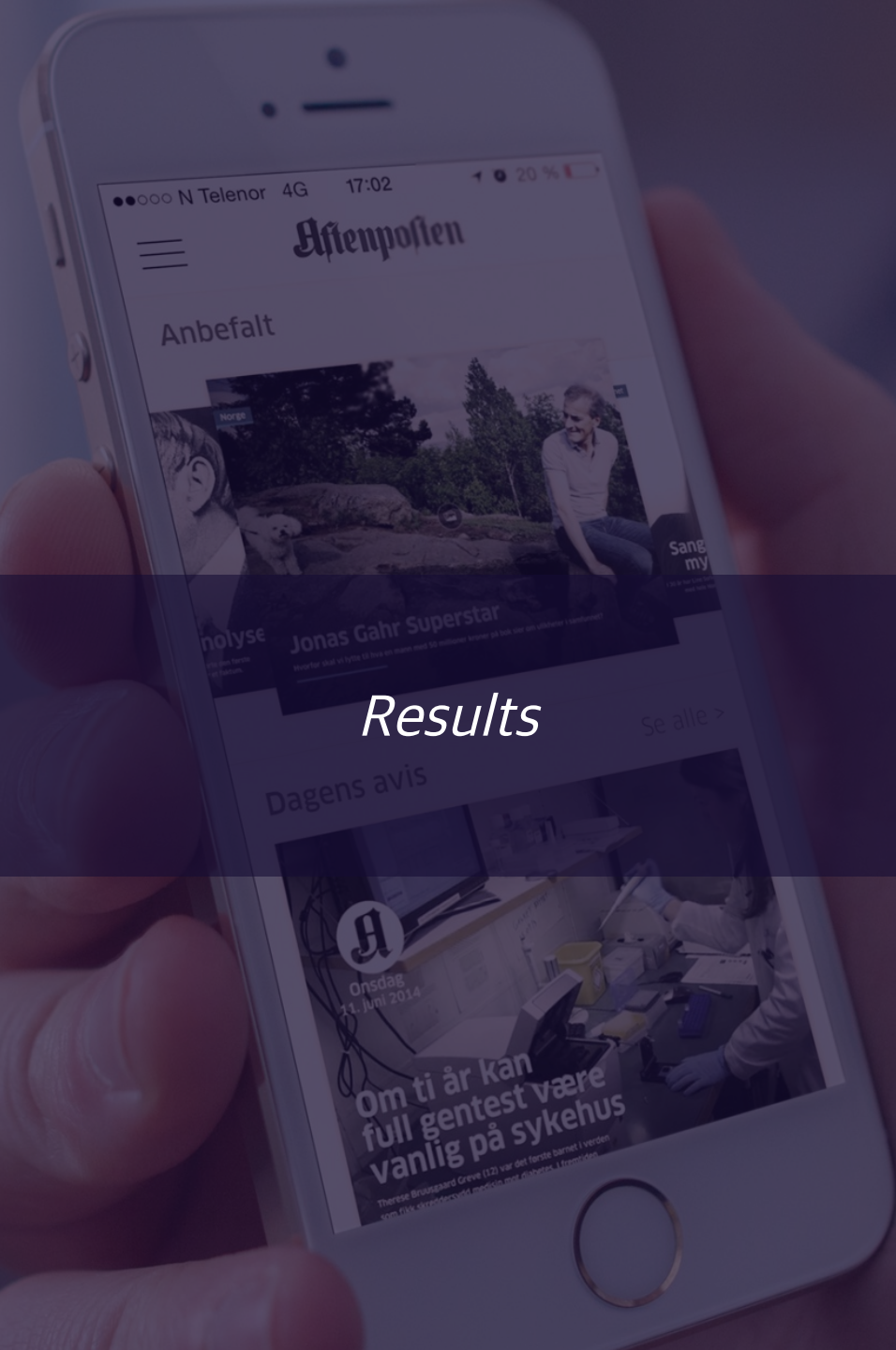
Anna

Anna, who visits us many times on several different devices every single day, is a more satisfied user.



Lars

Lars, our reporter or editor, will be happy – because he will create a more engaging product, and deliver even better on our journalistic mission and aspirations.



*Results*





# We have seen strong results on all our main objectives

- We have seen up to a 10% lift in engagement on our new front page, measured by stories read from front page (CTR)
- We have seen a 2% lift in conversion rates on our new front page
- We have eliminated legacy workflows by introducing a smart front-page algorithm, freeing up valuable time and resources for work of higher value
- We have paved the way for a dramatically faster and smarter product development to meet our user needs and achieve our business goals



## *Team credits*

*Project Lead: Eirik H. Winsnes, Development Editor Aftenposten*

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*Curate Product Team: Espen Volden, Hans Martin Cramer, Henric Englund, Kamil Grela, Magnus Ljadas, Rafal Górczanowski, Silje Søfting, Panic, Thomas Ermesjø*

*Aftenposten newsroom and user payment: Jostein Ihlebæk, Klaus Børringbo, Kristina Stamnes, Jorun Berntsen, Karoline Fosslund, Ronny Ruud and many reporters, editors and other staff throughout our newsroom.*





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