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TECHNOLOGICAL
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SINGAPORE

News Media Lab
The New Paper

Digital Media Blueprint Report

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Context

State of news industry

In recent years, the issue of fake news has constantly been spotlighted. According to the Reuters Institute Digital News Report 2018, more than half of 74,000 people surveyed are concerned about reading news that are completely made up. Furthermore, political leaders have also stepped up to clamp down on fake news or in worse scenarios, discredit news that are not in favour of them, causing the works of professional journalists to often be called into question.

Existing market pressures also fuelled sensational and partisan news content, increasing criticism and scepticism towards news. This is why individuals are also starting to come to terms with the fact that quality journalism costs as they become more aware of the commercial challenges. However, the news industry still struggles with finding a monetisation model. In the US, some 16 per cent pay for online news, this percentage remains relatively low in other parts of the world – 22 per cent in Nordic countries and only 7 per cent in the UK. While there have been more donation and membership models emerging, only 1 per cent of people surveyed by Reuters ever make a donation, indicating that more still needs to be done to find a business model for journalism.

Meanwhile, the trust in news has also taken a hit – only 44 per cent trust news in general and less than a quarter trust news they come across on social media. However, many still rely on social media like Whatsapp, Instagram and Snapchat to discuss issues with close friends. The advent of technology has also changed the way people consume news. Aside from smartphones, consumers are also turning to voice-activated speakers and listening to podcasts.

Another issue that has surfaced is the sheer volume of news being disseminated every day. The pressure to become a top information provider may lead to a “quantity over quality” effect. The many channels available have also led to the ease of information sharing, but this has also resulted in duplication of information, and there is no quick way to compare and evaluate these information sources. The current information-sharing landscape has accelerated the sense of information overload among many news audiences today. This is accurately depicted by the cartoon by David Sipress first published in The New Yorker, which has been shared by many and used in various news stories about the current news environment.



*"My desire to be well-informed is currently
at odds with my desire to remain sane."*

Photo: The New Yorker

This was also highlighted in a study by the Pew Research Centre¹ in the United States. A survey conducted on 5,000 people revealed that seven in 10 felt overwhelmed by the amount of news they are getting. This was especially true for those who do not favour news media. 80 percent of people who feel like national news organisations do not do a good job informing the public feel the most exhaustion from news consumption. We will therefore be zooming in on the issue of overwhelming news in the later part of the report.

Client profile - The New Paper

Strengths

The New Paper (TNP) has done consistently well in reporting human-interest stories. This is evident from Chartbeat, a tool that ranks the performance of news stories based on web traffic. Most of the stories that perform well are human-interest stories. TNP has also received praise for their in-depth and fair reporting when it came to stories like the HIV data leak and Aloysius Pang's death. It is also currently the only freesheet in Singapore, reaching close to 600,000 readers.

Challenges

However, TNP faces several challenges. Firstly, it has been struggling to shed its tabloid roots, despite merging with freesheet My Paper in 2016 due to an internal restructuring. In the merger, TNP revamped their freesheet to look more like a traditional newspaper layout with less emphasis on eye-catching photos and infographics, and more emphasis on columns of text. It also added in business sections and switched its target demographic to cater towards the professionals, managers, engineers and technicians (PMET) group instead of the general mass audience it was doing so before.

¹ Gottfried, J., Barthel, M. (2018, June 05). Nearly 7 in 10 in U.S. feel worn out from too much news. Retrieved from <https://www.pewresearch.org/fact-tank/2018/06/05/almost-seven-in-ten-americans-have-news-fatigue-more-among-republicans/>

Two years into the restructuring, general public perceptions of TNP being a tabloid newspaper are still rife among the general populace, as seen by their top-performing articles on social media over the past year – which happen to be mostly about human-interest matters such as Singapore scandals and gossip. In a thread that we started on Reddit's Singapore forum² prior to checking in with our client, commenters also mainly stated that they still view TNP as a tabloid paper, and that the change in the look and feel of the current TNP paper made it appear very similar to other papers. Commenters say this might have diluted its brand image.

Based on data we obtained from Facebook page analysis platform Crowdtangle over the past 12 months, TNP also paled in comparison in terms of total interactions to both legacy media titles and new media titles. While brands such as Yahoo Singapore, The Straits Times, Mothership.sg and Mustsharenews.com received more than 1 million total interactions in the last 12 months on Facebook (measuring from April 2018 to April 2019), TNP only received a tenth of those interactions in the same time period. Thus, there was a clear indicator that TNP was facing challenges reaching out to their online users and gaining critical mass there. This is despite them reaching an offline audience rather successfully through their freesheet circulation of close to 600,000 daily, according to their current rate card.

Next steps

In thinking of next steps for TNP, it would be beneficial for TNP to focus on gaining more online popularity. TNP could explore specific niches it did well previously that could add further value to online audiences, such as giving more digestible explainers on key news topics. Going back to the issue of news fatigue, a product that helps cut through the clutter could potentially help TNP gain more online presence. This also gives them the opportunity to tap on their archive of non-time sensitive stories to make them more accessible to readers. By directing more readers to the site, it could boost web traffic and instill more confidence among advertisers.

Introducing a product with a more seamless and sophisticated interface could also help TNP shift away from the “sensationalist” image, and improve their brand image among readers. Another way for TNP to engage with their readers more would be to implement some form of personalisation to improve the news reading experience and allow readers to easily find news that interest them. For instance, there could be a “tag personalisation” feature that allows users to follow tags that correspond to their interests. This would reduce the overwhelming amount of news and reduce the time required for them to find news they want to read.

Client's needs and problems

In order to find out more about TNP's pain points in both operations-facing and customer-facing environments, we engaged our client from The New Paper, digital editor Jonathan Roberts. He also holds a second portfolio as the editor of video channel Stirr under The Straits Times, part of the Singapore Press Holdings group of news brands. We also engaged Mark Cheong, product manager at Singapore Press Holdings to discuss technical tradeoffs.

After meeting with Jonathan and Mark, we realised there were other needs and problems that surfaced from their sharing session. Surprisingly, none of these concerns revolved around user needs. TNP believed that it had done a satisfactory job surfacing relevant content and keeping users engaged. They measure this by the advertising clients it has managed to retain.

² https://www.reddit.com/r/singapore/comments/akzazv/who_still_reads_the_new_paper/

Although Jonathan said they were still able to stay afloat as a publication, he mentioned that about 80 percent of revenue is now with the print edition and that advertisers are “happy” when their ads are mentioned on digital offerings as an add-on, such as through Instagram Stories.

When asked why was there an imbalance in advertising revenue between print and digital, Jonathan shared that the balance has been inherited from operations over the past few years. It became clear to us then that very little thought was placed in TNP’s digital offering and the accompanying user journey online simply because the pie of advertising for the digital side was very small and there was little return-on-investment (ROI). As such, we realised that one hypothesis could be that advertisers were not as compelled to partner TNP on its digital arm due to little value and ROI for their accounts.

Another hypothesis we came up with was that TNP did not know much about their users enough from a data-driven standpoint to know what these users wanted and did not want from the TNP site. Jonathan shared with us that during the TNP restructuring, they had engaged a user experience design agency to revamp the TNP website but he could not recall what were the user problems surfaced that compelled the redesign. This indifference towards users was shocking to say the least, and egged us on to get to the root of reader grouches towards TNP.

We also discovered other issues internally happening within TNP. First, it has a huge archive of non-time sensitive content, in particular food and lifestyle stories, that are underutilised and not accessible to readers. While such content can be searchable, the chronological order of information displayed on the TNP website makes it difficult to surface material that had been created in the past in a way that makes it easily discoverable on the TNP website. TNP also struggled to find a way to fully tap on the potential of these stories to drive web traffic. This tied in with the struggle to monetise journalism today.

We also found out that TNP’s digital site is only being managed by Jonathan as there is no headcount for the digital offering. This posed additional problems for us as it meant whatever solution we deployed had to be automated and have no need for any human interference or management whatsoever. TNP was operating off a content management system called Drupal so if we were to deploy any technical solutions, they would have to be able to be integrated to Drupal as a plugin if it needed editorial management. Else, we would have to factor in handing over technical implementations to the product management team for systems management.

Users’ needs

One of our first findings was from a user research survey (n = 46) that we conducted a week before our design sprint, which showed that The New Paper was associated with the keywords “tabloid, trashy, gossip” as opposed to how news readers perceive news generally as “credible, reliable, good writing”. The brand was also the second-least preferred source of news among a sea of local news brands including Channel NewsAsia, Mothership and AsiaOne. It would be safe to assume here that TNP’s strength is not in the news department, but the tabloid and gossip department.

Using this information, we spoke to users who were reading The New Paper and not reading The New Paper. Qualitatively, we found out that a major pain point in news readers was the inability to sieve through the noise on platforms such as Facebook and Twitter to get to the news that they want. The caveat here is that they rely on such platforms to give them news.

For those who did not read The New Paper, we found out that they have other interests that The New Paper does not cover, such as stock market trends. We also found out that the tabloid image that The New Paper had was off-putting to a younger demographic and as such, their trust in the brand's credibility decreased and so did their reading frequency of TNP.

As such, we quickly established that one of the main needs users had was they needed credible news tailored to their interests so they can sieve out other low-quality, unrelated content that they get bombarded with daily through social media platforms.

Target audience

We also targeted three different types of users that would likely be TNP users: older housewives, middle-aged professionals and younger professionals. This was also verified by our user survey, which mostly tended to skew towards the younger crowd in the range of around 18-35 years old. As we were looking at developing digital solutions, we focused on the younger professionals as a target audience as they would be most likely to peruse TNP digitally. The middle-aged professionals and older housewives would most likely still be consuming TNP through its free physical copy.

5-SESSION SPRINT

Findings and takeaways

Over the weekend of 15-17 February, our team gathered together to do a design sprint with the aim to create an innovative product or tool that might help TNP and also solve problems we have previously identified amongst news readers in today's current news media landscape.

We had to revise our problem statement in the first session because it did not center around a user problem. As such, we revised it to: *"The TNP user needs a way to get personalized news content because they feel overwhelmed by irrelevant news."*

We were inspired by other solutions that centered around personalisation. A big part of our inspiration came from Spotify which recommended playlists based on a user's mood which is an impetus to listen to songs. Other inspirations came from Quartz' news app personalisation feature where users can select topics to follow based on keywords that match those tagged on the articles. We also liked the ease of browsing from the card-based in the Shopperboard app and were developing two hypotheses:

- If users browsed news based on mood, they would find it easier to sieve the news they want
- If users browsed news based on layout, they would find it less overwhelming to read the news they liked

During the sprint, we were in disagreement over a big part of our prototype: we had trouble deciding how selecting a mood would translate to helping the the user read the news more efficiently. It was a tough decision between curation of content based on mood or changing the layout based on mood.

In the end, we decided to test out one prototype each based on both hypotheses, to hear our users' opinions directly. On the whole, our users associated the different mood categories with

the content rather than the interface. Some commented that they prefer a consistent interface as changing the interface based on mood categories can be confusing and even overwhelming.

Visual hierarchy was another insight we gained from the user testing. Majority of our users preferred the breaking/trending news to be more prominent so they know what to focus on the moment they access the app.

Many of the users also enjoyed exploring the “Add Tags” and “Follow Categories” function – they found such a feature to be extremely useful in terms of helping them seek out news that they are interested in. Users also expressed positive sentiments through their words and expressions when the app told them they have caught up on all the top news for the day; it served as a more casual way of alerting readers that they have scrolled to the end of news in a particular category.

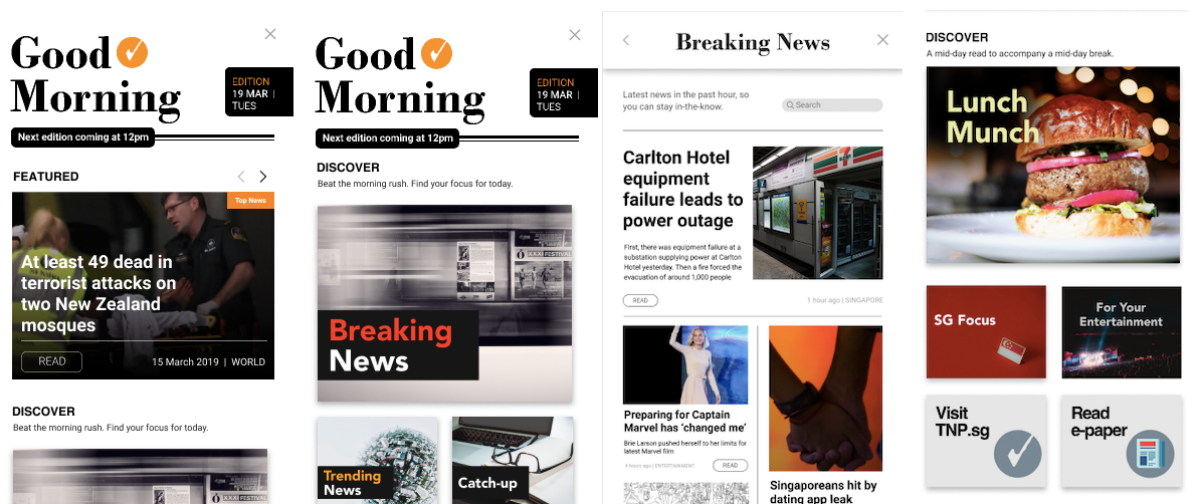
However, we also noticed that there needed to be more clarity in naming the categories as many of the users were unable to figure out what to expect from clicking on the various moods. We observed that this was somewhat disorienting for some of the users.

PROTOTYPE: THE NEW FOCUS

Justification

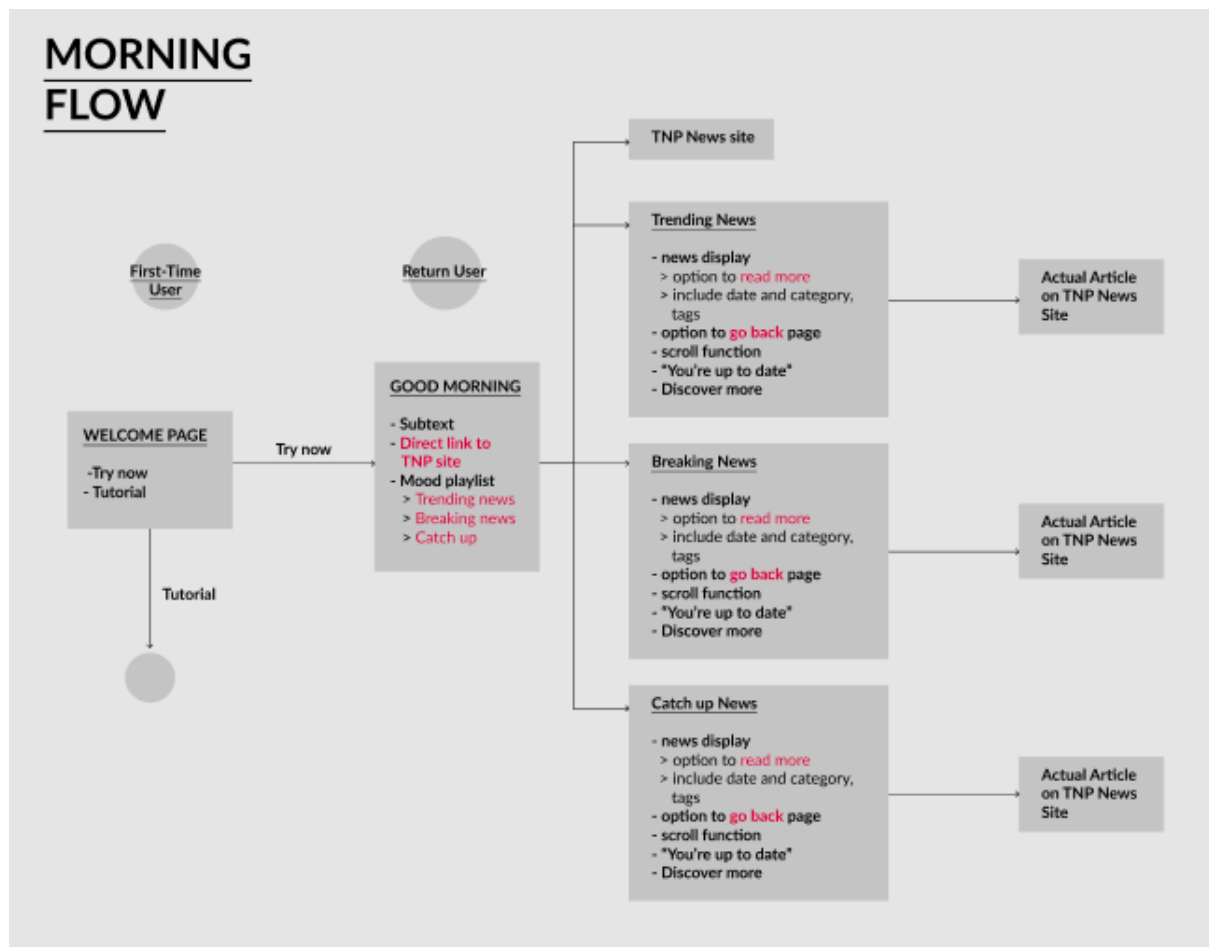
Based on our problem statement, we zoomed in on a few key words – “personalised news content”, “feeling overwhelmed” and “irrelevant news”. We approached it with the intention to help newsreaders cope with the issue of being bombarded by overwhelming information. We focussed on personalisation of news content by catering to what a reader needs at different times of the day as we realised a key part of what we learnt about our users was that the type of news they accessed differed at different times of the day, according to their needs and the time they had to do so.

Our MVP product is **The New Focus**: a Chrome extension that allows readers to cut through the clutter of endless news updates and discover what matters, when it matters – to read with a new focus. The prototype is viewable at <http://bit.ly/thenewfocusprototype>.



Screenshots of The New Focus

Below is the user journey flow:



We wanted to solve the issue of news being overwhelming through an extension that provides users with different editions of news to read at different times of the day – 9am, 12pm and 6pm.

The Chrome extension would be useful to immediately streamline what is relevant for users at certain times of the day. It also allows readers to access news without having to go the news site directly, and solves the issue of getting bombarded by notifications when it comes to news apps.

Despite most of TNP's users accessing the site on mobile from Similarweb data, we also heard from our users that they take breaks regularly from work by reading articles on news sites but did not want to fire up Facebook or Twitter in their workplace for fear of being judged for skiving. The Chrome extension is a non-intrusive way of catching up on the news for users who are taking breaks at work without having to access social media platforms to do so.

We broke up the different categories of news to three different bulletins at three different times of the day:

Time	News categories offered
9am	<p>Rationale: It is the start of the day, the reader is having his morning coffee before kick-starting his day at work. The main goal is to stay updated on the latest happenings. These three categories aim to allow the reader to be able access top news easily.</p> <p><u>Trending news</u> Allows readers to quickly access the top five most viewed in the last 24 hours</p> <p><u>Breaking news</u> Readers can immediately read the top news of the day</p> <p><u>Catch up</u> Brings users up to speed in previous day's top news</p>
12pm	<p>Rationale: It's lunchtime – readers may be looking for potential lunch spots and also more lighthearted reads like entertainment and lifestyle stories.</p> <p><u>Lunch munch</u> Lunch spots suggestions for readers</p> <p><u>SG focus</u> Local news for lunchtime chit-chat</p> <p><u>For your entertainment</u> Entertainment news to relax and unwind from work</p>
6pm	<p>Rationale: Offers readers recipes if they are keen on whipping up a meal for dinner and dinner spots if they plan to eat out. It also allows readers to catch up on the day's top news if they had missed them.</p> <p><u>Cook it tonight</u> Articles from TNP's Head Chef for dinner recipe ideas</p> <p><u>Dinner spots</u> Dinner places for readers to check out</p> <p><u>Today rewind</u> First five stories of TNP homepage for readers to catch up on the day's top news if they missed it</p>

Multiple iterations involved

Getting to the final product was a series of challenges that we had to solve through multiple iterations. This part aims to document the process from our first prototype to the final Chrome extension.

First prototype. Our initial prototype aimed to provide our users with the ability to personalise their news reading experience through filtering news content according to their preferences (categories) as well as their mood. This is so as to bring joy into the news reading experience as users search for news or discover new content that might interest them.

Having spoken with Jonathan, his main area of concern was finding a place for readers to come and access the wealth of evergreen content that TNP has to offer and there could be much potential in this section. Thus, through the creation of such categories of personalisation and content filtering, it would help TNP readers find these content much easier and with less hassle.

Based on the results of the Sprint and the testing phase, we broke up our solution into three main epics:

Epic	Introduction	Requirements
<i>Filter articles according to mood</i>	<ul style="list-style-type: none"> - Context: Users are likely to select content categories based on their daily habits and mood - Metrics: Improve average weekly pageviews of evergreen articles (stories written >3 months ago) 	<ul style="list-style-type: none"> - Technical: To discuss how articles would be sorted (chronological, shuffle-based etc.) - Technical: To discuss how tags could be suggested for automated mood filtering - Design: Using the “Productive” layout for consistency and clear visual hierarchy
<i>Select categories of news stories to follow on your feed</i>	<ul style="list-style-type: none"> - Context: Users are likely to open the app more once they have filtered what categories they want to follow - Metrics: Improve average weekly app opens after user sorts/selects categories once 	<ul style="list-style-type: none"> - Technical: To discuss syncing follow/unfollow system to feed changes on the homepage - Design: Implement progressive disclosure on tag display to prevent information overload
<i>Swipe through related stories</i>	<ul style="list-style-type: none"> - Context: Users are likely to read more articles if they can swipe to see other related stories - Metrics: Improve average weekly number of articles viewed per user 	<ul style="list-style-type: none"> - Technical: To discuss related articles logic and sponsored content logic - Design: Implement design affordances to guide users into a new swiping habit

However, after user testing, we found that users associated the different categories with news content rather than moods or interface. This alerted us to the fact that we needed clearer names for the categories as users were unable to figure out what to expect from clicking on the categories and that could be disorienting for them. They also gave feedback regarding the visual hierarchy of how news was being presented – they preferred the breaking and trending news to be more prominent. Users also enjoy the ability to add tags and follow categories as it gives them a sense of personalisation.

Second prototype. During a discussion on technical implementation, we also discovered that creating an app within one month was simply an ambitious task that was too difficult to pull off. We immediately zoomed in on our most important feature – the mood selector – and were discussing about having it be integrated onto the main TNP website as a plugin.

However, we recognised that within older users, there is a tendency to stick to designs and patterns that they know best and to not break the mould and disorientate them with a new website layout. The same thing could be said for the TNP app, for readers who are already used to certain layouts and would not want it to be interrupted with a new design.

Third prototype. After throwing out the plugin prototype, we sought to build the mood selector on a Chrome extension as it was easily implementable, had very few product competition in the market and was in line with our users taking breaks at different times of the day in work or school while on their laptop.

There are several news Chrome extensions in the market such as India tech blog TechGenYZ and the CCTV news reader but most of these products do not filter news according to categories or introduce timed bulletins. Instead, they function as mini-feeds of their site's homepage. Thus, we felt confident that our product had an edge in the market and could bring more value to news readers due to its curation ability.

After hearing from our users from the testing rounds that they don't select news based on mood and do so instead based on their needs during a time of day, we sought to change the mood filters into more personalised tags that catered to needs, such as "Catch-up" and "Lunch Munch", instead of generic categories often seen on news sites such as "Singapore" and "World". We also broke these categories up into timed bulletins at 9am, 12pm and 6pm to cater to different needs at different times of the day.

This iteration solved our users' needs at it breaks the unending cycle of information by providing summaries of news that catered to specific needs at three times of the day. In fact, consultations with our news mentors Alan Soon and Rishad Patel from The Splice Newsroom proved that they too saw how our product solved user needs of feeling overwhelmed with irrelevant news as it bucks the 24/7 news production cycle.

Metrics

Since the Chrome extension's main goal is to get future younger readers who may not necessarily be reading The New Paper to be accessing it through a different experience, the main metric we are tracking using the Google HEART framework – a metric framework from Google tied around user satisfaction – would be engagement.

Thus, the main metric we are measuring for this would be the number of times a user opens the app in a day. As we have three updates in a day, we are estimating an average open rate of three times per day. However, it would be great if the number doubled, meaning on average, users are checking one update at least twice.

Other metrics we would look at using the Google HEART framework are as follows:

- **Adoption:** Number of extension downloads per week / per month
- **Task success:** Total referrals to TNP website from the Chrome extension as a percentage of overall referrals to TNP website

Future of prototype

The prototype contains some future possibilities to create more functionality and add more value to users and TNP. These possibilities include playlist customisation, in-app summaries and product expansion to include multiple news organisations.

Playlist customisation: A feature we had to shelve due to its complexity was the ability for users to select their own playlists that they would like to follow – despite this being a highly-rated feature among our test group. Once we are able to prove that users are coming on the extension daily and are checking a high amount of playlists in a day, we would then release this customisation feature to give users the power to control what they would like to follow.

As the user's behaviour will be stored locally in the user's laptop or desktop, there is no need to implement login functionality for any customisation features. However, users could create accounts to save custom playlists and preferences. Future expansion of this could include playlist recommendations based on account behaviour and interests, using recommendation engines.

In-app summaries: After consulting with our mentors Alan and Rishad from The Splice Newsroom, they had commented on how the app could help users to solve their pain point of overwhelming news by giving summaries of the stories directly on the app itself so users do not have to hop onto the TNP website if all they need is a quick read.

A future release of this feature could be A/B-tested by first pulling the first three paragraphs of the article as a summary to see if users spend more time per session on a playlist page. Once the feature has been proven to work and users are indeed spending more time, TNP could consider having one person craft custom summaries on each playlist's articles.

Expansion to multiple news organisations: As the extension now pulls articles from one single source (The New Paper), some users may want to read from other sources and have that information be delivered to them in a concise manner according to their reading habits throughout the day.

As such, a future iteration could involve pulling articles from multiple content and news sources into each playlist to provide more options for customisation. A downside to this release would be that the power to provide white-label services for specific news companies may be diminished but that could be easily solved by providing additional services to companies on the backend such as automatic tagging and in-app branding opportunities.

Conclusion

The New Paper is a paper that continues to have a strong fanbase of offline readers due to its free printed edition, but it struggles internally to keep its digital offering alive due to a dearth of headcount in that area. By providing an automated solution to attract newer users, The New Paper's team can rest easy knowing that the Chrome extension is providing updates without needing any human support from the TNP team. Users also face an increasingly crowded marketplace of information that is irrelevant to their needs being pushed down platforms that they subscribe to. By providing a Chrome extension that lives on the laptop, the place they spend half of their day at, they can take breaks by checking the extension for news and information that is curated to their daily reading habits and interests. With future customisation options being planned, The New Focus hopes to be a platform for users to cut through the noise and see what matters to them.