### RESEARCH HIGHLIGHTS 7 DIGITAL SUBSCRIPTION BEST PRACTICES

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The art and science of acquiring digital subscribers has evolved considerably since the financial crisis in 2008 established the strategic necessity for digital audience revenue. Twelve years later, the global health crisis is providing a spike in audience and subscription sales for many publishers.

Between these two global events, news media companies have explored alternative paid content models such as premium content, article meters, hard paywalls, dual sites, and freemium

models. The technology stack supporting the digital subscription business model has evolved as well, with customer data platforms, paywalls, payment platforms, and many other tools entering the market. We found propensity models developed using data from cookies and applied on unknown visitors do not perform well and can be counter-productive for a publisher's digital subscriber acquisition efforts.

The reason for this phenomenon is that these propensity models have very large misclassification errors among unknown visitors, which are the vast majority of users on your site.

	FANATICS	ENTHUSIASTS	STABLE USERS	DABBLERS	FLYBYS	NON-ENGAGED
% OF AUDIENCE	2.0%	4.0%	6.9%	12.2%	44.0%	30.9%
ALL USERS	89,978	181,331	310,245	549,557	1,979,735	1,392,588
PAGE VIEWS	32.4	8.2	4.1	2.4	1.2	1
ARTICLE PAGE VIEWS	14.9	5.6	3	1.9	1.1	0.8
UNIQUE DAYS	5.1	1.8	1.1	0.9	0.6	1
VISITS PER USER	13.9	4.4	2.3	1.5	1	1
TIME PER VISIT	5:33	5:50	4:53	4:35	2:15	0:00
SCROLL DEPTH	54%	49%	49%	48%	42%	0.02%
AD REVENUE	\$0.72	\$0.18	\$0.09	\$0.06	\$0.03	\$0.02
% OF AD REVENUE	27.2%	13.7%	11.7%	13.8%	24.9%	8.8%
% KNOWN USERS	4.07%	0.44%	0.17%	0.05%	0.01%	0.00%
COOKIES PER KNOWN USER	1.71	1.1	1.04	1.03	1	1

Targeting your digital audience with propensity-to-subscribe scores has become a widely adopted tactic and a common offering among vendors. Our work with propensity scores and targeted acquisition campaigns has provided an important insight with significant implications for digital subscriptions strategies. We would like to share this insight with you and propose how best to use propensity scores.

#### Know What You Don't Know

Cookies provide the most common method of capturing clickstream data on site traffic and digital audience behaviour. Mather's Listener<sup>™</sup> tool uses first-party cookies to capture the best data for audience and content analytics. We used these data to develop propensity scores and implement targeted acquisition and retention campaigns. Above is data from a sample website with a typical user engagement distribution.

These data show about 31% of unique visitors effectively bounce off the site without spending any meaningful time viewing content. Another 44% of visitors are fly-bys that have one 2:15-minute visit during a 30-day period and consume about one article each. The remaining 25% of the visitors have anywhere from 1.5 to almost 14 visits per month, consume between two and 15 articles each, and spend between 4:35 and 5:50 minutes on the site when they visit.

For several clients, Mather has attached engagement segments to converted subscribers after their purchase was completed to see how they were scored pre-conversion. We found in many cases customers who purchased digital subscriptions appeared to be low-propensity targets due to the data available to the propensity

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algorithm at the time they were on the site. This can happen if the visitor clears their cookies, are in incognito mode, or use a new browser. The number of visitors who fall into this category make the prediction error on this group a significant factor that must be considered.

The table below shows the propensity scores for each engagement segment and the converted subscribers from a metered paywall set at two articles per month. We were surprised to find that more subscribers came from the fly-bys segment than from the fanatics segment, and the reason was the misclassification of propensity scores for unknown visitors. Mather Economics calibrates our audience segmentation recommendations using predictive modeling (including machine learning and econometrics to estimate conversion probability) and additional inputs such as engagement thresholds and known user identifiers (such as newsletters, registered users, and commenters). These audience segments, when aligned with effective marketing tactics and customer-centric user journeys, lead to subscription success.

Fingerprinting has been offered as a potential replacement for cookies that could help with tracking unknown users, but we have not seen a successful modeling case study using that approach. A shift toward server-side paywalls is a promising development that

	FANATICS	ENTHUSIASTS	STABLE USERS	DABBLERS	FLYBYS	NON-ENGAGED	will enable less leakage	
% OF AUDIENCE	2.0%	4.0%	6.9%	12.2%	44.0%	30.9%	of content and support	
ALL USERS	89,978	181,331	310,245	549,557	1,979,735	1,392,588		
PROPENSITY TO SUBSCRIBE	0.200%	0.067%	0.033%	0.017%	0.008%	0.000%	tighter registration walls.	
CONVERSIONS FROM METER	169	91	53	15	0	0		
ADV REV PER PAGE	\$0.022	\$0.022	\$0.022	\$0.025	\$0.025	\$0.015	A transfin the meedie in	
MISCATEGORIZED USER PCT	0.05%	0.05%	0.20%	0.8%	25.0%	n/a	A trend in the media in-	
MISCATEGORIZED USER NUM	45	91	620	4,396	494,934	n/a	dustry has been to offer	
CONV RATE OF MISCATEGORIZED USERS	0.04%	0.04%	0.04%	0.04%	0.04%	n/a		
CONV OF MISCATEGORIZED USERS	0.0	0.0	0.3	2	217	n/a	less free content, either	
TOTAL CONVERSIONS	169	91	53	17	217		through increasing the	

### What Does This Mean?

There are several implications of this finding on digital subscription acquisition strategies:

- 1. Registration is an important tactic that should be adopted to increase the share of known visitors to a site.
- **2.** Real-time propensity scoring is likely not adding much value to your subscriber acquisition process.
- **3.** The paywall (or metre) is only one part of a multi-channel acquisition strategy, which includes e-mail, interstitial calls to action, and other nudges to subscribe.
- **4.** Propensity-to-subscribe scores applied to unknown visitors should be used with caution.
- **5.** An optimal intelligent paywall strategy should have a "rainbow" pattern of access, with a tight paywall on the ends of the engagement spectrum and more content offered to the medium-engaged user segments.
- 6. Engagement segments are often a better predictor of subscription likelihood than propensity scoring for anonymous users.
- 7. Overall, less content should be offered for free.

share of content designated as premium or by permitting access to fewer articles under the metre. In most cases, this strategy has increased the number of subscription sales by significantly growing the number of subscription sales attempts.

Conversion rates will decrease as less-engaged readers on average are presented with the request for a subscription, but the increase in sales attempts will be greater than the reduction in conversion rates.

Lower subscription offer prices with longer promotional terms can offset some of the reduction in conversion rates by minimising the price sensitivity of the visitors. A longer term of the promotional offer will help with the retention of new subscribers. In short, give away less content, reduce subscription offer prices, and extend the length of the promotion.

It should be noted that this acquisition pricing strategy should be changed during a spike in demand such as the one we are experiencing due to the pandemic crisis. We discussed recommendations on how to optimise offer prices during this time on our recent Webinar with Curtis Huber of The Seattle Times and Grzegorz Piechota, researcher-in-residence at INMA.

Most subscribers are converted after multiple sales attempts — often more than 10 — so presenting a visitor with a paywall should follow that famous line about voting: It should be done early and often