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WHITE PAPER

How Intelligent Paywalls™ Maximize Total Digital Revenue

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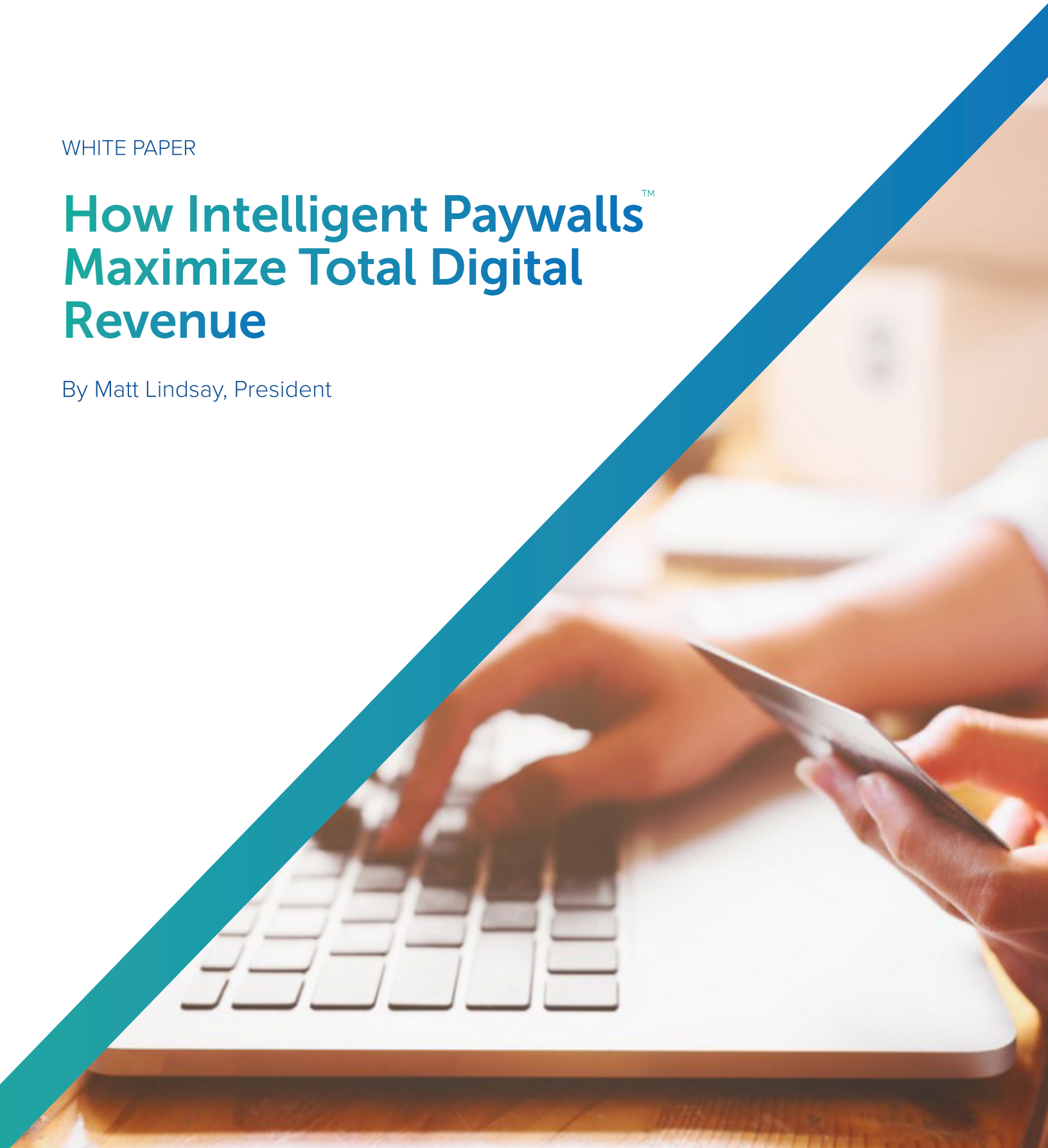


Audience revenue is a growing component of the digital business model, but it often comes at the cost of advertising inventory. News media companies are struggling to support their newsrooms with digital advertising revenue and subscriptions offer a stable revenue source. In fact, media companies of all kinds are seeking subscription revenue as they find digital advertising revenue insufficient for sustaining their operations.

However, as they employ a subscription revenue strategy, publishers must consider the potential for lost advertising revenue from reduced site traffic and address it through smarter paywalls. As digital publishers limit the public's access to their content by putting it behind a paywall, they place some advertising inventory at risk. A membership model strategy, such as that pursued by De Correspondent in the Netherlands, or a contribution revenue strategy, pursued by The Guardian in London, may alleviate some of this lost advertising revenue. But all audience-based revenue strategies will have some effect on advertising inventory.

Advertising revenue will also be at risk due to the product changes required to make a digital product compelling to a paid audience. Improving the user experience typically requires reducing the number of advertisements on a site relative to a pure advertising-revenue business strategy.

> *"subscription models offer a stable revenue source as digital advertising revenue is insufficient for sustaining operations*

Two Different Stories

A sample analysis of two news media company's digital audience and advertising revenue is presented here to measure the potential return from employing an Intelligent Paywall™ in place of a standard paywall. The data has been adjusted to protect confidentiality, but the relative metrics across segments remains accurate.

"Publication One" is the second-largest newspaper in a large American city with about 10 million average monthly page views and about 4.5 million unique visitors. It is focused on long-form articles. "Publication Two" is a regional publication with about 120 million average monthly page views and about 22 million unique visitors. It has infinite scroll and publishes shorter articles. Neither publication had a paywall at the time of the analysis of their audience.

The current audience for each publication was segmented by engagement. Engagement is defined using three dimensions: the volume of content consumed, the pattern of consumption behavior, and the nature of the content consumed.

There are six metrics helpful for quantifying these dimensions:

1. Article page views
2. Frequency (how many visits per month)
3. Recency (average time between visits)
4. Time on site
5. Content breadth (number of content categories visited)
6. Scroll depth

These engagement metrics are used by many publishers to segment their audience, and they are correlated with a customer's propensity to subscribe.

PUBLICATION ONE

	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%

PUBLICATION TWO

	FANATICS	ENTHUSIASTS	STABLE USERS	DABBLERS	FLYBYS	NON-ENGAGED
% OF AUDIENCE	2.8%	4.7%	7.6%	1.4%	45.9%	37.6%
ALL USERS	616,112	1,042,405	1,680,348	302,959	10,138,386	8,313,119
PAGE VIEWS	99.9	16.6	7.6	3.7	1.7	1
ARTICLE PAGE VIEWS	55.6	10.9	5.2	2.3	1	0.5
UNIQUE DAYS	12.6	4.1	2	1.4	1	1
VISITS PER USER	24.1	5.3	2.4	1.6	1.1	1
TIME PER VISIT	6:29	6:43	5:58	4:18	1:58	0:00
SCROLL DEPTH	50%	46%	47%	47%	36%	2%
AD REVENUE	$1.89	$0.26	$0.10	$0.04	$0.02	$0.01

Engagement-based audience segmentation of two news media sites

In the table above, we see that engagement decreases from left to right moving from the Fanatics to the Non-Engaged. Metrics for each segment are reported for a 30-day time period. Fanatics and Enthusiasts are the customers most likely to subscribe. Stable Users and Dabblers require more engagement before they are viable subscription candidates. Fly-bys and Non-Engaged are unlikely to be observed again beyond the one visit captured in this data. Using these metrics, it is possible to estimate a propensity to subscribe for these segments. We are also able to measure advertising revenue from a user in each segment.

The propensity to subscribe can be estimated using several approaches, including machine-learning methods and econometric models. The segmentation is determined by relative propensity to subscribe, and differences in audiences can be seen in the metrics.

For instance, the Fanatics in Publication Two have more article views than the same group in Publication One. This is in part due to the nature of the two products and the mix of mobile browser versus desktop browser traffic. Other behavior metrics, such as time on site and scroll depth, are affected by the nature of the site user experience and hard to compare across sites. However, visits and unique days are helpful for comparing the two audiences. In these two metrics, the audience for Publication Two is found to be relatively more engaged for a comparable level of subscription propensity.

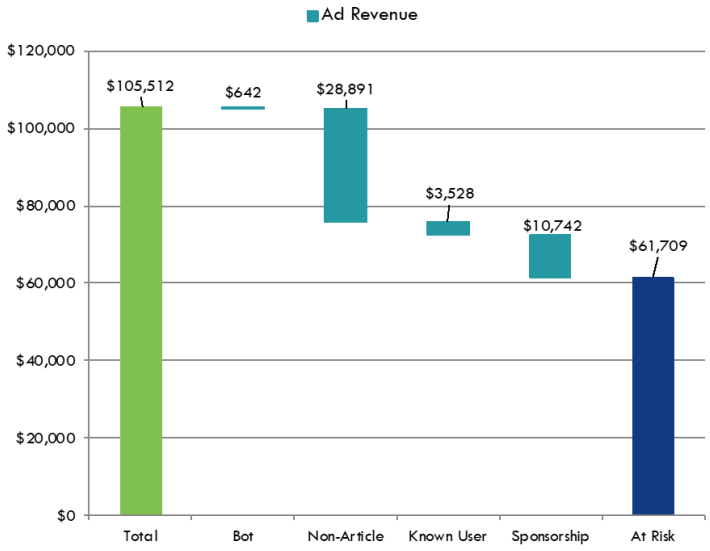
Engage and Convert

As expected, the audience segment most likely to subscribe are the Fanatics, which average 2.5% of the site users. The Enthusiasts are the next most likely group of subscribers, with an average of 4.5% of the users. Together, these two customer segments represent the majority of the addressable market for acquiring digital subscribers.

Stable users are potential subscribers. But the best tactic for that group is to grow their engagement via registration, newsletter promotion, and content recommendations before seeking a subscription. Publishers that have print products and all-access subscriptions may have a significant portion of these addressable customer segments already as digital subscribers. Some of these customers may be economically unable to subscribe, and many digital readers will take a long time to convert to subscribers or will not subscribe due to the value proposition of the current digital product.

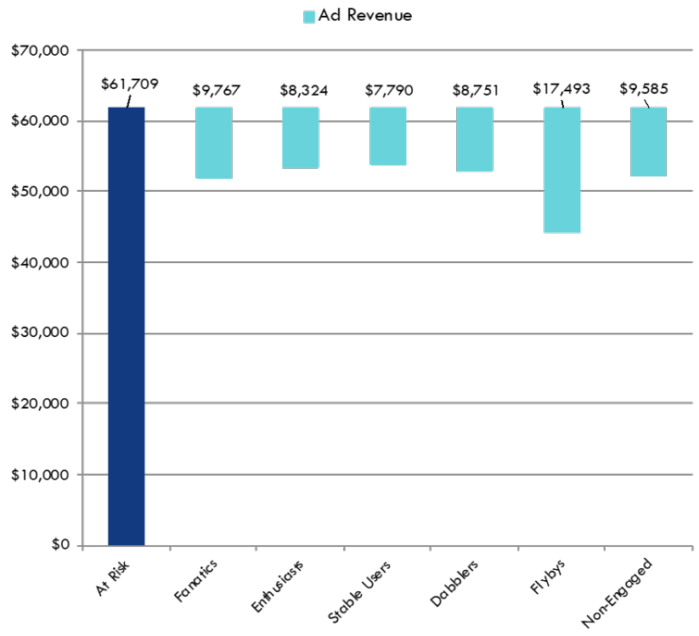
> *Publishers must consider the potential for lost advertising revenue from reduced site traffic and address it through smarter paywalls.*

An important observation from this data is that the customers most likely to subscribe generate a significant share of a publication's advertising revenue. Asking for subscriptions from this group would appear to significantly reduce advertising revenue. However, not all of the ad revenue from these customers is at risk from a metered or premium content model. Pages that will not be behind the paywall, such as the home page and index pages, make up a large share of the ad revenue. Other types of ad revenue not affected by a paywall are also removed from the at-risk revenue. The next chart below shows how the at-risk advertising revenue is determined for a site.



At-risk advertising revenue from a paywall

The target groups for subscriptions will have relative high conversion rates, which will also mitigate the loss of advertising revenue. When the at-risk advertising revenue is calculated for the segments and adjusted for likely conversion rates, we find that the revenue at-risk by segment are about equal, as is observed the following chart.



Advertising risk by engagement segment

Balancing Risks and Rewards

A conclusion from this analysis is that an across-the-board paywall will increase the advertising revenue loss. If the paywall limits access to only those customers likely to subscribe, the lost advertising risk will be significantly reduced. Another conclusion is that the across-the-board paywall will attempt too few subscription sales to the target audience because it is balancing the revenue streams across all customer segments and not just the segments likely to subscribe.

To illustrate these points, the table below gives forecasted results for two alternatives for a site currently using a 10-article paywall. The first alternative reduced the number of articles a reader will receive before reaching a paywall modal with subscription offers from 10 articles to 5 for all users. The second is a targeted meter of 5 articles to only those customers in the likely-to-subscribe segments and a meter at 10 for all other readers.

Three Paywall Strategies		Current State Meter = 10	Modeled Across-the-board (ATB) Meter = 5	Modeled Targeted Meter = 5
Monthly	Page Views at Risk	597,905	1,043,335	740,753
	Paywall Hits	26,102	82,678	62,004
	Conversion Rate	0.97%	0.78%	1.19%
12 Months	Total Conversions	5,379	8,668	9,649
	Total Sub Revenue	$292,612	$485,121	$545,285
	Ad Revenue at Risk	($73,233)	($128,259)	($91,135)
	Net Revenue	$219,379	$356,862	$454,150
	Dollar Tradeoff	$4.00	$3.78	$5.98
	Net Revenue per User	$41	$41	$47

Comparing a targeted paywall strategy to the current state and across-the-board meter of five article views per month

The key findings from these alternative paywall scenarios is that targeting the readers most likely to subscribe with acquisition offers increases the number of acquired subscribers by 11% while saving about 30% of the lost advertising revenue relative to the more aggressive across-the-board strategy and raising the net digital revenue by 27%.

A metric for measuring the effectiveness of a subscription acquisition strategy is the ratio of incremental subscription revenue to lost advertising revenue. In the table above, this metric is labeled the Dollar Tradeoff, and the use of targeted acquisition offers yields $5.98 of subscription revenue for every dollar of advertising revenue lost compared to $3.78 for the more aggressive across-the-board strategy.

Devising a strategy to maximize audience revenue while minimizing lost advertising revenue is the challenge facing digital publishers. Finding the best path forward requires innovation in product design, content marketing, and subscription sales tactics. An often-overlooked aspect of a successful digital subscription model is retaining customers once you have them. Understanding the economics and engagement of the current readership is the starting point of a digital audience revenue strategy, and an intelligent paywall is an important tool for implementing that strategy. ■

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Mather Economics is a global business consultancy headquartered in Atlanta, Georgia. We work with our clients to implement analytics-driven strategies that increase subscriber revenue yield, operating margins, reader engagement and reduce subscriber churn. Mather has worked with over 600 publications worldwide managing digital and print subscriptions. We help our clients by providing the services they need to develop and implement a successful subscription strategy. We offer strategic consultation, data science and econometrics, implementation support, benchmarking, A/B testing and best practice case studies.

To support digital audience analytics, we developed Listener™, a digital data capture and analytics platform. Listener enables the capture of high-quality user-level data that our team of data scientists and consultants turn into actionable items and real results. Listener also supports the implementation of analytics within your existing tech stack, such as Intelligent paywalls, targeted newsletters, content recommendations, and retention campaigns.

To maximize audience revenue, contact Matt Lindsay at matt@mathereconomics.com.

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