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Who Would Pay for Online News?
An Empirical Study on the Viability of the Subscription Model

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As no business models seem to generate reliable revenue streams for online news services, many publishers see the subscription model as the last resort for survival while little evidence suggests users are ready to pay for online news at this moment. A random-sample telephone survey of 853 Hong Kong residents empirically examined the viability of the subscription model for online news services. Results showed very few users actually responded to paid content and most had no intent to pay in the future. Age, Internet use, and format preference are related to paying intent, while income is not. Online publishers should consider the economic implications before adopting the subscription model.

With more than 5,000 daily, weekly and other newspapers providing online services worldwide (Newspaper Association of America, 2002), the Internet has become a well-established news medium. However, the profitability issue still troubles the online publishing industry. After years of experimenting, no business models seem to generate reliable revenue streams for online news services.

Back in the mid 1990s, many news sites started by charging users a subscription fee for online news access, but most failed. The advertising model followed, only with limited success, for the effectiveness of online advertising remains questionable. Starting 2000, the economic downturn caused a decline in online advertising revenue.

On the other hand, e-commerce never fulfilled its promise. So a number of online news publishers have been reconsidering the subscription model as the last resort for survival. Some have readopted the model, and many more may follow suit. Web users were told, “There ain’t no such thing as a free lunch.”

While this “free to fee” trend seems inevitable, little evidence suggests users are ready to pay for online news at this moment. By implementing the fee-based model, the online news industry run the risk of losing the user base that they have tried so hard to build over these years (by giving content away for free), which, as a result, will turn advertisers away for good. This may create another crisis and may seriously undermine the quality and quantity of online news services offered to the public. To evaluate the viability of the subscription model, an empirical examination of online users’ response to paid content is essential.

This study investigates how consumers in a geographic market respond to online news and what factors have an influence on paying intent. At the theoretical level, this study serves as an extension and further development of previous research on the product relationship between online and print news. In addition, by linking users’ format preference – i.e., how users perceive news in online and print formats on the same basis -- with paying intent, this study goes beyond user demographics and hopes to contribute to a better understanding of online news economics.

The Economics of Online News & Research Questions

Since the birth of the online medium, Internet news publishers have been experimenting with various revenue models for their online operations to achieve profitability: the subscription model, the advertising model, the transactional model, and the bundled model. (For a detailed review of these models, see Mings & White, 2000). However, recent market research shows that many newspapers generated less than $5 in online revenue per unit of circulation (Borrell & Associates, 2003).

By 1999, a survey of 64 online newspapers serving California, Texas, New York, and Florida empirically examined the application of these models in the online news industry (Chyi & Sylvie, 2001). That study reported quite an unenthusiastic response to the subscription model. Back then, online advertising served as a revenue source for almost 80 percent of the sites. Fewer than 20 percent adopted e-commerce and pay-per-use models. But only three percent of those online news providers were utilizing the subscription model and most said it would be unlikely or very unlikely to charge for online news access within the next two years -- i.e. between 1999-2001. While the fee-based WSJ.com has long served as a classic example for adopting the subscription model, most online publishers believed that general-interest news sites would find it difficult to do the same.

The real market development was somewhat surprising. Following the economic downturn, by 2001, the “free to fee” trend suddenly took off. (For a detailed account of such practices in the industry, check the website The End of Free at theendoffree.com). The subscription model re-entered the agenda, and many online publishers seemed to believe it’s time to start charging for the valuable information they offer (Outing, 2002).

However, market researchers found little evidence that suggests users are ready to pay. According to the results of a March 2002 consumer survey, 70 percent of online adults cannot understand why anyone would pay for content online (Jupiter Media Metrix, 2002). Another market study revealed that 71 percent of news site users would go somewhere else because there are so many free sites available. In addition, the sign-up rate for newspapers that are charging for online access range from 0.2 to 2.6 percent of the print circulation (Borrel & Associates, 2001).

Little academic research directly tapped into the economic viability of the subscription model. Findings of an exploratory focus group study showed that while most participants ranked the Internet their No. 1 information source and were able to identify many of its strengths and weaknesses as a news medium, they showed no intent to pay (Chyi, 2002). To further understand users' response to paid content, this study attempts to address the following questions:

RQ1: How many users are actually paying for online news access? Why?

RQ2: How many users will be willing to pay for online news access in the future? Why?

Chyi's study (2002) also explored an economic concept -- the "inferior good" – defined as "a good for which an increase in income decreases consumption, *ceteris paribus*" (Katz & Rosen, 1991, p.72) -- and its applicability to the consumption of online news. This concept may provide an economic explanation for the seemingly "no one would pay for it" phenomenon. To further investigate the economic nature of online news, one must examine the relationship between income and consumption of fee-based online news services. Therefore, this study attempts to address the following question:

RQ3: What is the relationship between income and the consumption of paid content online?

In addition, this study attempts to identify other factors related to online users' paying intent by addressing the following question:

RQ4: What other factors (demographics, usage) influence people's paying intent?

Media psychologists have explored user perception of online and offline news content (Sunder, 1999). Previous research on the relationship between online and print newspapers also explored an attitudinal variable "format preference" and found that the print format was preferred even among Web users when compared with the online format on the "other things being equal" standpoint (Chyi & Lasorsa, 1999 & 2002). This study attempts to link format preference with paying intent to better understand online news consumption by addressing the following questions:

RQ5: What is the general public's preference for a particular format (online vs. print)? Why?

RQ6: Is format preference related to paying intent?

Method

A random-sample telephone survey of 853 Hong Kong residents was conducted during November 13-17, 2002 to investigate the general public's response to online news.

Hong Kong -- with the highest Internet penetration in Greater China -- is also one of the most wired cities in Asia. As of 2002, 54% of people aged 10 or over had used a personal computer and 48% had used Internet services during the previous 12 months (Hong Kong Census and Statistics Department, 2003). Hong Kong also has the highest newspaper penetration in the region. About 20 daily newspapers remain active in the market. At the end of 2002, 18 media websites provided online news services – 12 were operated by newspapers and six by TV or radio stations. Faced with the economic viability issue, online publishers in Hong Kong seem relatively radical when compared with their counterparts elsewhere in experimenting with the subscription model. Six online news sites are charging (local or overseas) users for access to at least some parts of the site.

Sampling

A systematic random sample was drawn from the Hong Kong phone directory combining the "plus one" method -- adding one to the last digit of each number sampled -- that ensured every residential telephone (including unlisted and new numbers) an approximately equal chance of being included (Landon & Banks, 1977). The sampled area included the Hong Kong Island, Kowloon, and New Territories, yielding a combined population of around 6,815,000 (Hong Kong Census & Statistics Department, 2003).

Data Collection

Graduate and undergraduate students in communication completed 853 interviews after a training session. The sample size of 853 yielded a standard sampling error of ± 3.4 percentage points at the 95 percent confidence level. The response rate was 44 percent.

Survey Instrument

The survey, which took an average of 15 minutes to complete, focused on usage of and attitudes towards traditional and online media. Questions were developed according to the results of a focus group of 10 students registered in a university in Hong Kong. Revisions were made based on the results of a pretest conducted right before the study. The survey instrument measured traditional and online media usage including newspaper use, TV use, computer use, Internet use, and news website use.

Response to paid content was measured by the following question: “Are you currently paying for access to any online news services?”

Future paying intent was measured by the following question: "How likely is it that you will pay for access to online news services in the future?" Follow-up, open-ended questions probed the reason behind the answer.

Based on previous research (Chyi & Lasorsa, 1999 & 2002), user perception of online and offline news media was measured by this hypothetical question on format preferences for online or print newspapers -- "*Imagine that you are provided with both print newspapers and online newspapers with the same news content and at the same price. Which would you prefer?*" -- without specifying the name of a particular newspaper.

Demographic variables (gender, age, education, and income) were also included.

Results

The sample of 853 Hong Kong residents had slightly more females, as most telephone surveys do. The sample over-represented people aged 15-24 and under-represented those in the lowest education category. Table 1 summarizes the differences between the survey sample and the 2001 Hong Kong Census statistics in several demographic variables. Overall, the sample was reasonably representative of the population.

Table 1: A Comparison of the Sample and the 2001 Hong Kong Census Data*

	Census (%)	Sample (%)
Gender		
Male	48.6	45.9
Female	51.4	54.1
Age*		
15-24	16.4	28.1
25-34	19.8	18.0
35-44	24.3	21.2
45-54	17.2	16.6
55-64	9.0	7.5
65+	13.3	8.6
Education		
Elementary or less	28.9	16.1
Form 1-3	18.9	17.1
Form 4-5	26.3	31.8
Form 6-7	9.4	10.0
Tertiary	16.4	24.9
Monthly Income**		
1-6,000	17.9	16.6
6,001-10,000	24.8	24.3
10,001-20,000	34.8	33.6
20,001-30,000	11.3	13.7
30,001-40,000	4.6	6.0
40,001 or above	6.6	5.7

Source: Hong Kong Census & Statistics Department (2003)
* Base = people aged 15 or above
** Base = people aged 15 or above with income

Traditional & Online Media Use

Of all respondents, 97 percent watched TV on a daily basis.[1] On average, a TV viewer spent more than 2.5 hours watching TV per day. (The median was 2 hours.) About 89 percent of all respondents read the newspaper, and the average time for newspaper reading was 57 minutes per day. (The median was 45 minutes.)

In terms of computer use, 63 percent of all respondents aged 15 or above used a personal computer at home or work on a weekly basis. Computer users rated their computer savvyness using an 11-point scale (with 0 being not familiar at all, and 10 being extremely familiar), and the mean was 5.6.

[1] Cable TV penetration was 28 percent.

Of all respondents, 55 percent were active Internet users, who used the Internet regularly. On average, they had three years of online experience. Among these active Internet users (n=469), 48 percent spent up to one hour online per day. About 21 percent spent between 1-2 hours, and 18 percent spent between 2-4 hours, while 12 percent spent more than four hours online on an average day. The mean was 2 hours and 12 minutes per day. (The median was 1 hour and 30 minutes.)

Some 46 percent of all respondents had used online news, and 35 percent visited one or more local online news sites during the past seven days.

Response to Paid Content

Despite six online news providers were charging for access to at least some parts of their sites, Hong Kong users' response to paid content was far from active. Only ten respondents -- that is, 1.2 percent of all respondents or 2.1 percent of active Internet users -- subscribed to any of these online news services at the time of the study. Appledaily.com and now.com.hk got the most subscribers -- three for each.

As for the reasons why they decided to subscribe to paid content, seven respondents answered this open-ended question. Two said they paid because the subscription fee for such services was reasonably low. Another two said the subscription fee was actually paid by the company or their family members. One said it was convenient to use such a news service. One said the news site serves as a useful tool for doing homework. Another paid in order to get one more information source.

Future Paying Intent

Online news users who were not currently subscribing to paid content were asked to estimate the possibility of subscribing to such content *in the future* (n=375). The results also were not very promising. Some 43 percent said it was "unlikely" that they would pay for online news in the future, while 38 percent said "very unlikely." Only 1.3 percent answered "very likely" and 21 percent said "likely."

An open-ended question probed the reasons for the lack of paying intent: Nearly 40 percent of those without future paying intent indicated that free alternative news services exist -- 29 percent mentioned traditional news media and 10 percent mentioned other online news services. A long the same line, 17 percent said they would not need such services. Another 17 percent said price was a factor damping their willingness to pay.

Among those who said they might be willing to pay in the future, the reasons cited include: "if I have such needs" (21%) and "if the price is reasonable" (15%).

Paying Intent & Demographics

Since the sample of paid news subscribers is small, the following analysis focuses on paying intent -- a new variable combining current paying behavior and future paying intent -- and its relationship with factors such as demographics, usage, and perception.

Correlation analysis was conducted to identify the relationship between income and paying intent but the result was insignificant. In other words, people with higher income were not more willing to pay than those with lower income.

Further analysis showed no relationship between paying intent and gender, education, or computer knowledge, either. Age, however, was a factor that slightly correlates with paying intent (Spearman's *rho* = .115, p <.05, n=380). Younger users were found more likely to pay for online news access. Among the group aged 15-24, 32 percent said they were currently paying or would be likely or very likely to pay for online news in the future, while only 21 percent of those aged 30 or above said so.

Paying Intent & Usage

While demographic variables did not account for much of the variation in paying intent, how about actual usage? Results did show that time spent online per day was positively related to paying intent (Spearman's *rho* = .203, p <.001, n=379). Crosstab analysis showed that 7 percent of those spending more than four hours online per day (n=44) were currently paying for online news and 30 percent said they would be likely to pay in the future. Analysis found no relationship between paying intent and the number of online news sites visited during the past seven days though.

Paying Intent & Perception

When asked which format -- print or online -- was preferred given the same content and the same price, only 10 percent of all respondents said they would prefer the online edition. Among online news users (n=396), still 83 percent said they preferred the print edition, while only 17 percent preferred the online edition.

In addition to age and online usage, format preference also was associated with paying intent (Spearman's *rho* = .139, p <.01). Those who preferred the online format were twice as likely to pay for online news than those who preferred the print edition (21% vs. 42%).

Open-ended questions probed the reasons behind this format preference. Most (77%) of those who preferred the online format (n=65) mentioned the convenience factor. In comparison, those who preferred the print edition (n=312) cited "convenience" (28%), "Don't like the online reading experience" (20%), "habit" (15%), and "paper is more tangible" (10%) as reasons for preferring the print format.

Discussion

Overall, the study showed that most online users were not paying for online news and did not show strong intent to pay in the future, suggesting that the subscription model is not working and may not work well in the future. The results correspond with the trend identified in U.S.-based studies using site-centric approaches (Borrell & Associates, 2001). As the lack of paying intent looks like a global phenomenon, online publishers worldwide should exert caution when implementing the subscription model.

The analysis identified no relationship between paying intent and income, gender, education, or computer knowledge but showed a slight correlation with age. In addition, time spent online and format preference was also related to paying intent. These findings carry a few implications.

First, although younger respondents and heavy Internet users were more likely to pay for online news access, even among the youngest age group or the heaviest online users, still more than 60 percent reported no intent to pay in the future. Online publishers should bear this in mind when evaluating the viability of the subscription model.

Second, regarding format preferences, compared with the print edition, the online newspaper was clearly less preferred. Answers to the follow-up, open-ended question also revealed why users preferred different formats. As format preference is also related to paying intent, how to change that format preference might imply the possibility for increasing paying intent. However, while respondents who preferred the print format seemed able to cite some diverse reasons for their preference for the print format, those who preferred the online format failed to mention anything other than "convenience." It seems that Internet-specific features such as "timeliness," "interactivity," and "searchable databases" were not perceived as important even in those online lovers' minds.

One cannot rule out the possibility that the online newspaper simply cannot serve as a profit center like its print counterpart on an equal basis -- by generating subscription-based revenues from the local market. For the time being, online advertising still seems like a relatively effective and low-risk revenue driver. However, if the effectiveness of online advertising still remains questionable, in the longer term, online publishers might need to reposition their online product accordingly – as a complimentary service for readers or as a showcase of its brand name.

Theoretically, this study serves as another step to examine the unique economic nature of online news. While buying a copy of the print newspaper is not a big deal for most consumers, what makes them so reluctant to pay for online content? As results showed that income is not a factor determining paying intent, subjective or attitudinal variables seem of great importance. Further investigation into the economics of online news should take these variables into account. On the other hand, the lack of relationship between income and paying intent provides preliminary support for the "online news as inferior goods" hypothesis, which should be further explored with more empirical evidence.

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