CARLSON SCHOOL OF MANAGEMENT
UNIVERSITY OF MINNESOTA

ANALYTICS for GOOD INSTITUTE

Analytics Teaching Case

HIGH NOTE'S FREEMIUM CONUNDRUM

by Lee C. Thomas & Ravi Bapna

Lisa Peschke set down the waiting-room issue of *The New Yorker* and sighed. She'd just read a piece by Malcolm Gladwell, author of "The Tipping Point" and "Blink," often cited decoder of trends, and sometimes oracle. In this article from 2009 (the dentist office hadn't cleared out the magazine selection in a few years, it seemed), Gladwell had harsh criticism for a just-released book titled, "Free: The Future of a Radical Price" by Chris Anderson, editor of *Wired*.

Lisa recalled the book, released at the height of optimism about *free* as a marketing strategy. Gladwell's piece argued against Anderson's premise and sunny assessment of the future of newspapers, content providers, software makers, and other businesses. Fueled by technological advances, *free* was a common strategy in the increasingly digital world. The idea was to give people something they wanted – for free – and make money off of "surrounding activities."

The article didn't offer solutions so much as it highlighted the basic question: *How does a company make money off something it's already giving away for free?*

The question wasn't exactly new. Sampling and trial periods were as old as marketing itself, and not really at issue. Offering content for free in order to attract an audience advertisers would pay to reach had worked for decades in the broadcast television, newspaper, and magazine industries. But those models were eroding quickly in the face of rapid technological change, proliferating media choices, splintering audiences, and the digitization of just about everything.

The trends intensified through the 2000's, and a new breed of business emerged. Inventors, entrepreneurs, engineers, and programmers launched new digital products, services, platforms – entire companies native to the Internet. Many, if not most, of these companies used *free* to entice people to sign up, building a user base that would hopefully pay off. The thinking was plausible in theory (as Anderson maintained) but tricky to execute (as Gladwell countered).

How does a company make money off something it's already giving away for free?

Many companies employed this approach. LinkedIn, Match.com, online games, Dropbox, various web-based software services, and countless other businesses offered free versions of their products to entice people to sign up. For many companies, users could sign up and use the free version indefinitely without ever having to pay the company. This forced many businesses to maintain a precarious balancing act between the need to retain customers in an environment of unlimited choices and the need to actually produce enough revenue to remain viable. Where was all of this headed?

Photo by Henry Be on Unsplash

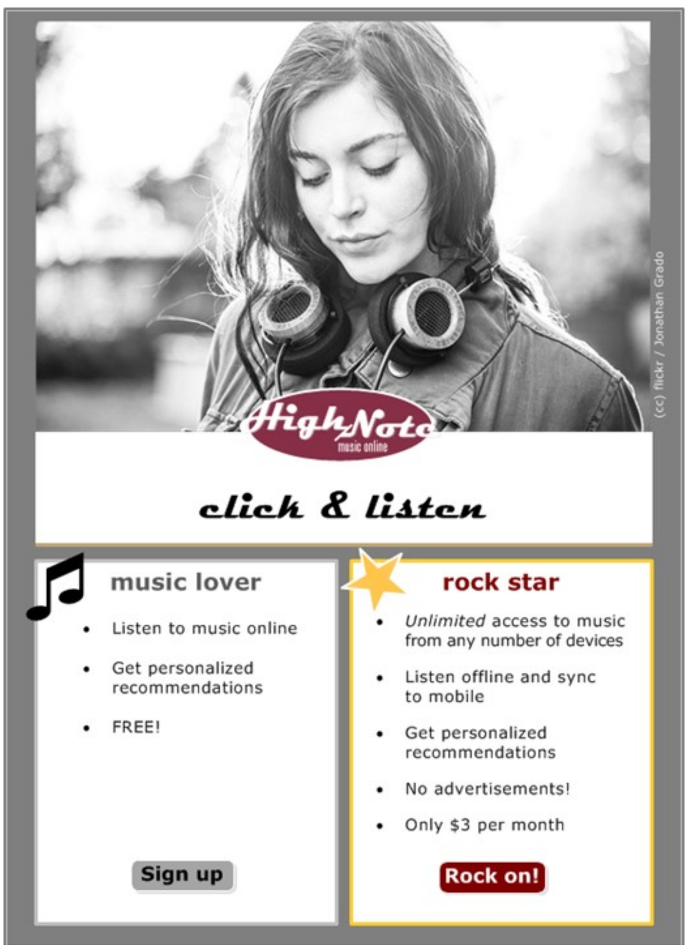
For Lisa, the question was more than just a diversion as she waited for the hygienist to call her back. With her MBA, traditional marketing background, and years of experience at a major electronics retailer, Lisa had accepted a position as director of marketing for an online music-listening community not long after that particular issue of *The New Yorker* printed.

During her retail career, Lisa had worked in CD and DVD categories and had seen, first hand, the dwindling sales figures. The outlook for brick-and-mortar retailers had grown dimmer by the quarter, and finally the 2000's came to a close amid a global recession. When the offer came to join High Note, Lisa was eager to add more digital experience to her career.

"Lisa? We're ready for you now," said the receptionist. Lisa left the magazine behind and headed for the dentist's chair.

Click and Listen: The High Note Model

The next day at the High Note offices, Lisa reviewed the latest numbers: **1,214,303 users** and **37,161 premium subscribers.** The High Note model exemplified the term *freemium*. Anyone could sign up for a user account, build a profile, and listen to songs for free. Between songs, at random intervals, the system served up 15 second audio ads, in addition to the display ads on screen. **Premium subscribers paid $3 a month** for an ad-free version of the service that came with some extra features.



Lisa looked out the window of her office and thought back to the *New Yorker* article. Anderson had argued that technological advancements kept reducing the costs to create certain products and services to near negligible levels. There was some truth to this; for example, High Note didn't have to pay for the materials or machinery to print physical CDs, or shipping costs to move them across the country to store shelves.

On the other hand, Gladwell rightly pointed out that there were always *some* costs involved in running a business, digital ones included. High Note paid licensing fees for the rights to stream music – and the indus-

"It's hard to turn a profit if you're an ad-based online music service. The record labels command a chunky slice of the revenue in the form of music licensing royalties, and advertisers fear that their ads won't get through to consumers."

"The obvious solution is for Pandora to smoke out more premium subscribers, but that's just not happening. Subscription revenue — which only accounts for 11% of its income — is actually growing slower than the disappointing ad revenue."

Rick Aristotle Munarriz
commenting on another freemium music service in DailyFinance

http://aol.it/1kt55vl

try was in flux as artists campaigned for more control over their work. There was also the need to buy cloud server space and employ a staff to run daily operations and improve the site's recommendation algorithm, which some saw as its calling card in the market. All very real expenses incurred on the balance sheets.

Lisa was more than familiar with these two opposing viewpoints. Offering a free version of High Note dated back to the platform's origins in the apartment of a couple of computer science students. The free version helped attract users – real people who spent time on the site. This audience was the basis of High Note's business selling advertising space. The free strategy also helped spread awareness for the brand early on, which helped High Note gain a critical mass of users in a competitive marketplace. There were several other ways to listen to music online after all. Discontinuing or even altering the free service would most certainly result in users abandoning the service. Such a drop in numbers would damage ad revenues. That equation was easy: fewer ears and eyeballs meant less money from advertisers.

As if on cue, Lisa's email program chimed a notification. The subject line read, "Where are we with new tactics to drive sign-ups?" The VP of sales and operations was pressing to get the numbers up in hopes of capturing more ad money. But ad revenues alone had never equaled High Note's expenses, and Lisa doubted that another marketing campaign would fix that any time soon.

The company's future was far from secure. As an early entrant in the online space, they'd had an advantage over other, lesser known players and attracted investment capital. But that was then. In 2011 there were more options than ever: album downloads, other streaming services, podcasts, audio books, Internet radio, music bundled with cell phone services, and more.

To make things even more challenging, consumer loyalties seemed to change as quickly as the technology, maybe quicker – a brand could be hot one day and all but forgotten the next.

Lisa knew the story better than Gladwell and Anderson combined. After all, they were observers making proclamations from behind a keyboard. She was the one living in freemium, trying to find solutions to keep High Note going. She knew one place where she would find an ally.

Allies across the Organization

Eaton Jenner, head of High Note's product development team, had an office down the hall and just beyond an open bank of developer work stations. Lisa walked past the developers' many desk toys. The Frankenstein figure standing next to a lit-up banana lamp always caught her eye. The morning hours were usually quiet on the development floor; today, most of team wore headphones as they scanned their screens.

Photo by Charles Deluvio on Unsplash

Lisa approached Eaton's office door. "Hey, Eaton. Got a minute?"

"Sure. What's up?" Eaton said, looking up from behind his desk.

"I've been looking at the latest numbers. We're not exactly burning it up, as I'm sure you know."

Eaton's expression darkened. This wasn't their first conversation on the issue. For at least six months the senior leadership team had been discussing High Note's long-term sustainability. With the platform established and competition increasing, people were getting nervous.

Lisa continued, "New user sign-ups and paid subscriptions are both stagnant."

"What about your marketing campaigns?" asked Eaton.

"We aren't seeing movement there. I could throw a bunch of tactics together, but even if we get a lot of new people to sign up, it won't be enough if they choose the free option."

"Yep, okay." Eaton leaned back in his chair, "So what's changed since our last meeting about this?"

"Well, I know your team recently pulled a bunch of data from the server logs. I'm thinking we look at it for clues. Maybe the data can tell us something that the focus groups and satisfaction surveys can't."

"I'm with you," said Eaton. "If nothing else, it will give us a new way to look at the problem."

"We're certainly not the only ones with this problem," added Lisa, "I've seen reports that show even the biggest players have only single-digit paid-subscriber rates." She handed Eaton a printout:

- Pandora has 1.6%, Dropbox 4% and Evernote 2%, of its user base paying for premium. (http://gigaom.com/2010/03/26/case-studies-in-freemium-pandora-dropbox-evernote-automattic-and-mailchimp/)

- LinkedIn is reported to have a 1% premium subscription ratio. (http://en.wikipedia.org/wiki/LinkedIn)

Eaton sighed. "Well, how about I grab a couple people and meet you in the conference room?"

"Great," said Lisa, "I'll head in there now."

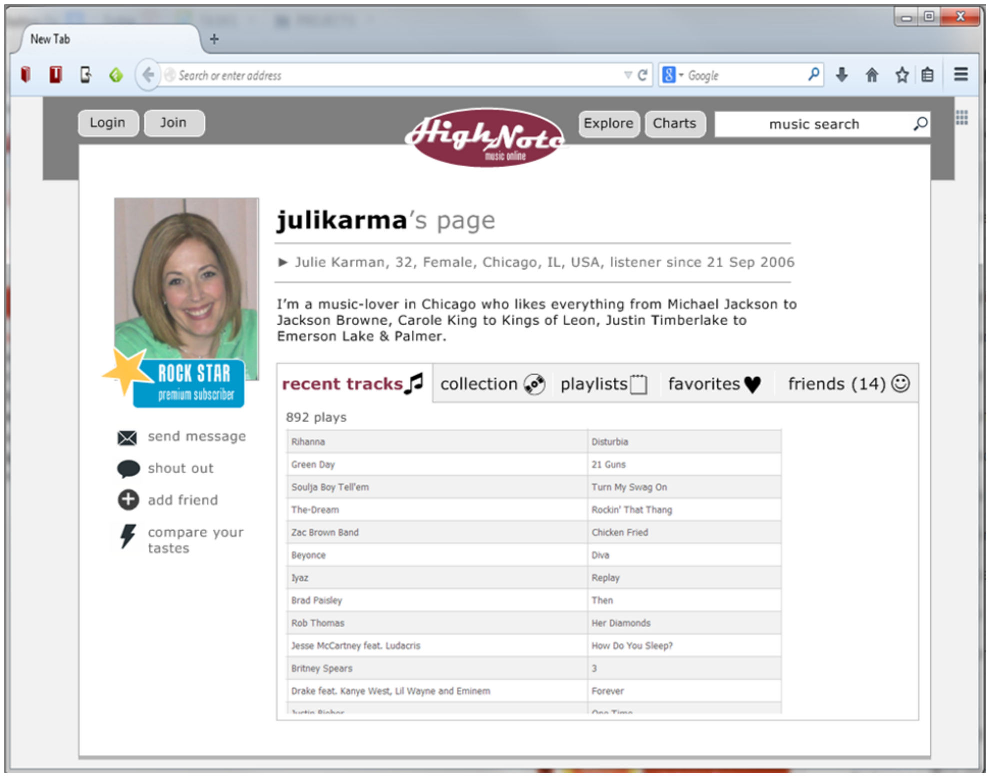
Team Meeting

In the conference room, Lisa wrote three questions on the whiteboard:

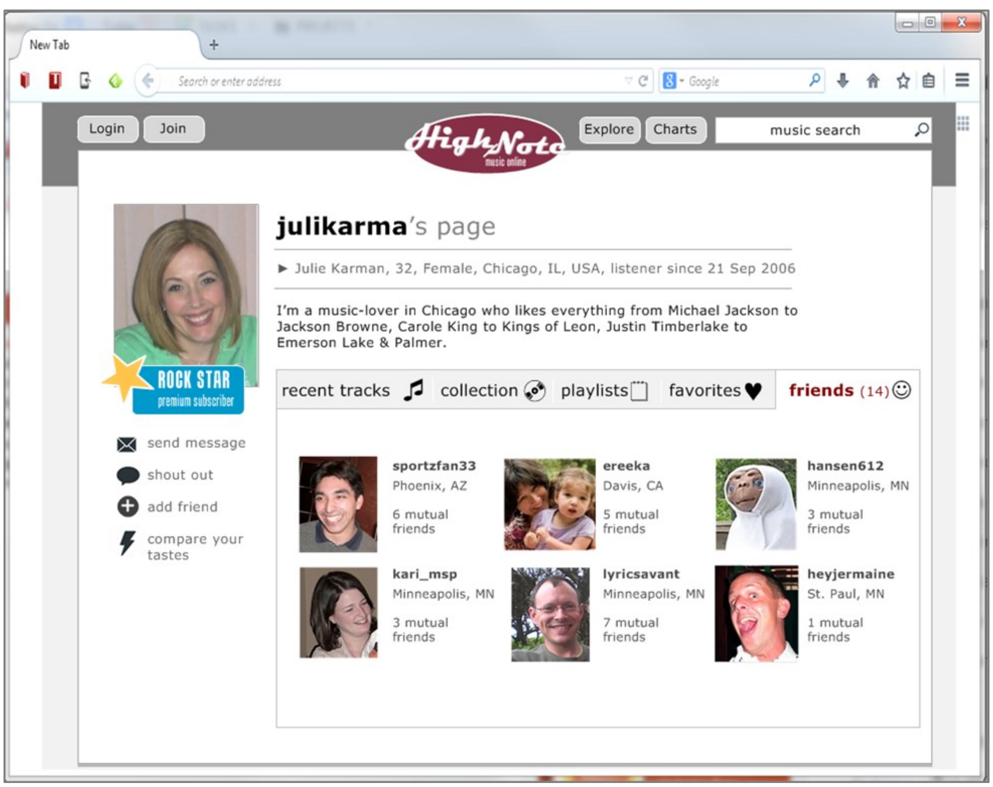
1. How can we convert more free users to paid premium subscriptions?
2. How can we attract more premium subscribers?
3. How can we keep the users we have engaged so they don't wander off?

Eaton entered the room with two of his team members close behind. "Janet and Sam did the data pulls," said Eaton, "Let's look at what we've got, and maybe pull up a typical user on screen as well."

The flat screens on the wall flickered to life as Janet and Sam plugged in their laptops. One screen showed a typical profile page. This one was for a dummy testing account, but it helped remind everyone what a user experienced when logging into High Note.



User Profile Page



User profile page showing social connections

The second screen showed data:

subscriber	N Obs	Label	Mean	Std Dev	Missing	Median	Minimum	Maximum
0	1214303	Age	23.21	6.18	385200	22.00	8.00	79.00
		Gender (Male=1)	0.66	0.48	234278	1.00	0.00	1.00
		FriendCnt	24.18	70.65	0	10.00	1.00	11780.00
		SubscriberFriendCnt	0.65	2.85	0	0.00	0.00	541.00
		SongsListened	24913.30	32365.72	1	15022.00	0.00	1000472.00
		Playlists	0.53	3.32	0	0.00	0.00	2291.00
		Posts	7.67	141.70	0	0.00	0.00	64108.00
		Shouts	42.19	271.02	27717	5.00	0.00	131765.00
		LovedTracks	128.15	406.44	0	35.00	0.00	99109.00
		RegDate	17838.23	636.71	584	17902.00	15642.00	18877.00
		Country	0.30	0.46	0	0.00	0.00	1.00
1	37161	Age	30.26	9.25	14165	28.00	8.00	78.00
		Gender (Male=1)	0.76	0.43	8449	1.00	0.00	1.00
		FriendCnt	33.73	116.62	0	10.00	1.00	9788.00
		SubscriberFriendCnt	2.85	10.35	0	1.00	0.00	709.00
		SongsListened	31996.64	43938.95	0	18139.00	0.00	1000070.00
		Playlists	1.44	5.38	0	1.00	0.00	496.00
		Posts	27.74	465.16	0	0.00	0.00	50740.00
		Shouts	85.31	531.56	1275	5.00	0.00	36508.00
		LovedTracks	370.05	1104.95	0	149.00	0.00	63595.00
		RegDate	17678.54	628.82	1	17735.00	15642.00	18868.00
		Country	0.28	0.45	0	0.00	0.00	1.00

"We've got plenty of data," said Sam, "Where do you want to start?"

"Well," said Lisa, "We know that **a paid subscriber is 24-time more profitable** than a free user. So the obvious question is, how do we get more people to pay for the premium subscription?"

"Would we consider making it a paid-only service? Discontinue or limit the free version?"

"That's risky," answered Lisa, "The free version creates an audience we can sell to advertisers. The ads subsidize those users. In addition, the free version gives new users a way to try before they buy, and there's research that supports that strategy, especially for digital products. I think we need to look more closely at what we know about our current users. See what the data can tell us."

"Demographics, account info, site activity..." listed Eaton.

"All that's great," said Lisa, "Plus, I'm especially curious about the social features. How are people using them? How can we use them to strengthen our position?"

High Note's Freemium Conundrum

ABOUT THE CASE

Developed by Professor Ravi Bapna and Lee C. Thomas for the University of Minnesota's Carlson School of Management. Written by Lee C. Thomas.

This case is intended solely for classroom discussion. Data for this case came from a real online music-listening service; however, the characters, situations, High Note name, and other details are fictional inventions.

Questions about the case may be directed to the Information & Decision Sciences Department or the Analytics for Good Institute at the Carlson School of Management, University of Minnesota.

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