# **Economic Insight**

Issue 16 04.11.09 www.prsformusic.com/economics





Prepared by Will Page and Chris Carey at PRS for Music, in collaboration with David Touve of Washington and Lee University and Keith McMahon of STL Partners and the Telco

# How to dance to ARPU, when licensees call the tune

Spotify has attracted global press attention for its achievements in the UK, where the service has gone from zero to nearly three million users the space of six months. Equally as surprising, Spotify took the time and effort to "go legit" before seeking popularity, reversing a trend that has dogged the development of the digital music market over the past decade. Now the stakes are high for both the Swedish start-up and the music industry: is the arrival of Spotify, alongside further ISPs offerings, the 'silver bullet' that the

industry has been waiting for, or is it just another in a long list of false dawns? More importantly, will the established ISP metric of ARPU (Average Revenue per User) help bring additional value to both rights holders and users; or will fears about displacement on one side of the market hinder the abilities of the other to develop new legal models. Furthermore, will it take a new mindset and some new metrics for the music industry to understand and embrace the 'music as a service' paradigm?

#### Acknowledgments

Will Page would like to thank Niklas Ivarsson Magnus Hult and everyone at Spotify. In addition, he would like to thank Alison Marshall and the Scottish Society for Computing and Law where this work was first presented. He would also like to thank KODA, Andrew Bud, Stuart Dredge, Fred Bolza, Rory Sutherland, Eric Garland and Paul Sanders for their valuable comments and helpful suggestions. Finally, thanks to Catherine George, Barney Hooper and Steve Cole for helping produce the document.

This material has been prepared by Will Page at PRS for Mu for information purposes only and should not be relied on for any other purpose. It does not constitute the view of the any other purpose. It does not constitute the view of the Management or the Boards of MCPS, PRS or any associated company. It is provided for the information of the intended recipient only and should not be reproduced or disclosed to any other person without the consent of the PRS for Music PR department. For further enquiries, information, and to request permissions, please contact: press@prsformusic.com

We've all heard the hype. Music - the product - is dying a slow, arduous death. Music - the service is the rising star, the future for industry opportunity. And in this service world for music, ARPU (Average Revenue Per User) has become a bit of a "buzzcronym", these days. Services like Spotify refer to an ARPU approach as a gamechanging solution for the recorded music industry, while ISP's prepare to launch their own music services (not for the first time), bundled into an existing ARPU model. Acronyms have a tendency to worry folks at times, often unnecessarily. We know what ARPU stands for but what does this acronym mean to music rights holders given that there is no 'average' consumer of music, and we should be wary of generalisations. Furthermore, with UK recorded music trade revenues now back to their 1994 levels, in nominal terms, it's worthwhile for rights holders to consider learning how to dance to ARPU given these new service entrants may be increasingly calling the tune.

### Can music services beat, or bust £63pa?

If we are going to talk ARPU, there is some published research we should talk around. According to the BPI Statistical Yearbook, 40 percent of the 12+ population in the U.K. purchased music during 2008. Importantly, within that 40 percent of music buyers, the average spend was £63. As such, £63-per-music buyer may be the ARPU benchmark for the recorded music industry when considering the threat, the opportunity, or the indifference inherent to new music services.

In the context of £63 per music buyer, a subscription service that attracts a loyal following at £10 per month, totalling £120 per annum, is nothing to ignore. Even once you work out the trade value of this £120 that passes through to the performing artists and songwriters, the financial appeal of music services rings clearly. The difficult question however would be: who opts in to such a service - she who was previously the £63 per annum "average" buyer, she who was previously a £150 per annum buyer, or she who was previously a lost soul who rarely ever purchased music at all? Does the service offering displace one form of engagement (HMV on a lunch break) for another (streaming Spotify whilst at your desk)? Or by way of the new service do we discover a lost soul, someone who has not bought a CD/download for years, for whatever reasons, and is now re-engaged and hooked on Spotify? Perhaps most frustrating for music rights owners, are these questions we can even answer with the data we have?

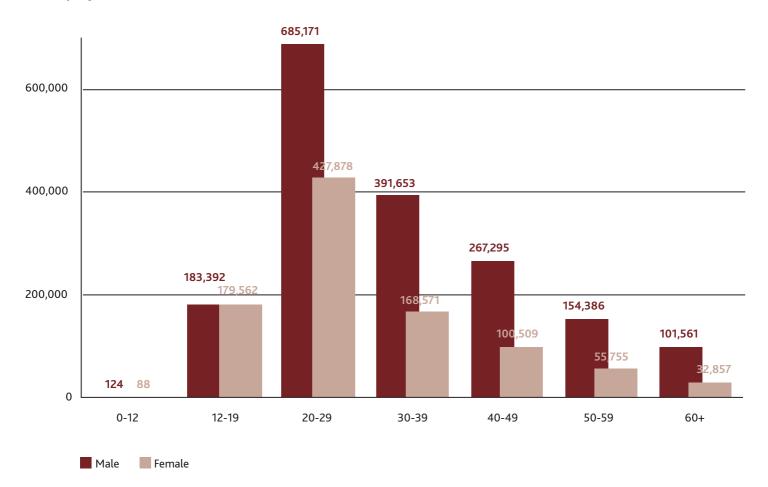
#### The Spotify data

Through collaboration between rights holder and rights user, *PRS for Music* and Spotify have worked on the Spotify service data from the UK for the six months to July 2009. We began with two simple questions: Who's using the service? How are they using the service?

The results may be staggering, insightful, or obvious depending upon the reader, but any conclusions are ultimately tempered with the limitations of what we can actually do with this data.

# Spotify UK penetration, by age and gender, six months to July 2009

**Source: Spotify** 



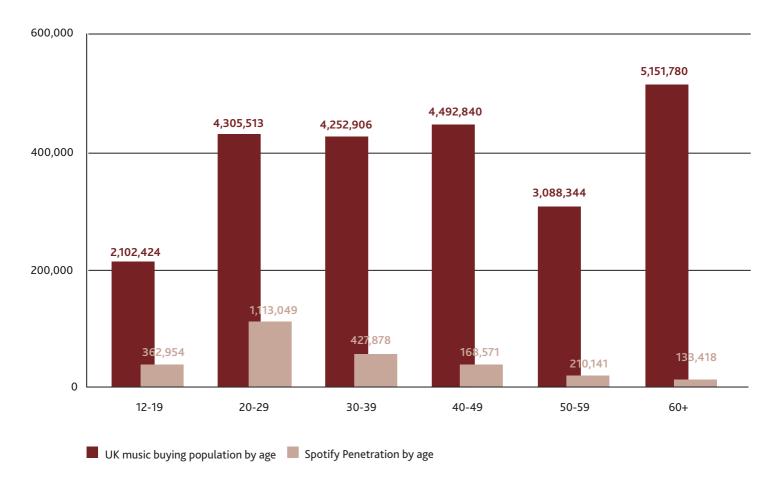
Firstly, there were 2.7 million users of the Spotify service in the UK by the end of July 2009, achieved with a UK marketing budget of only €3,000. Secondly, in the gender breakdown, men love Spotify more than women, making up 65% of the users. Thirdly, twenty-somethings dominate the Spotify audience, making up 40% of the total user base. For a one line summary - twenty-something men clearly love Spotify. For a caveat, ask if that's the best way to carve up a market. For example, one could equally argue that Spotify's remarkable user base within the UK market is less than half under the age of 30 and more than half over the age of 30. Similarly, you could question whether age and gender are the right vectors to be looking at, and ponder instead geography, disposable income, education, profession, or dynamics of psychographic dimensions.

To recall, even if our approach to this Spotify data were not the best way to look at the market, and even if ARPU were not the right term to turn around the recorded music industry, the £63 per music consumer

per annum figure provides the industry with a published target, a notional yardstick and a tried and tested means of pricing a business proposition. So, how do Spotify's user demographics stack-up when plotted against that 40% segment of the population that currently buys music? Does the Spotify user base mirror the demographic distribution of the BPI data, suggesting (with a grain of salt) some displacement, or are these distributions somewhat different, suggesting (with yet more salt) new souls in the church of recorded music? We can make this comparison visually by referring back to the BPI Statistical Year Book and plotting by age groupings the 23 million people who make up the 40% of the consumer public, as well as the 2.7 million Spotify users broken down the same way (see chart overleaf).

## Spotify UK penetration against the UK music buying public

Source: Spotify, ONS and BPI Statistical Year Book 2009



Three displacement-minded observations jump out of what is a potentially mis-leading chart. Firstly, there are over four million twenty-something's who currently buy music in the UK and Spotify, on this measure, has amassed a quarter of this number. Secondly, there are over five million people aged 60+ who currently buy music, and Spotify has tapped into this market only negligibly. Now Spotify might consider those 60+ folks as having (i) time on their hands and (ii) disposable income, making them prime candidates for 'tipping' into Subscription models. From a rights-holders perspective, the average spend of those 60+ folks is only £44 pa, making the £120 in subscription revenues that wee bit more attractive.

But what if Spotify were converting what could be crudely titled "the disengaged majority" ...the 60 percent of the UK population that did not purchase music? An important caveat being: whilst the vast majority of these folks will be engaging with music in some form, what they are not doing is going out and buying recorded music. Should some new revenue come from the lost 60 percent who are now hooked on Spotify and make its way back to the labels, it's a clear case of earning something as opposed to nothing, irrespective of any pontification about what the 'right' metric is. To wrap up with an intuitively obvious observation: what if Spotify's user base involves a bit of both displacement and conversion?

#### Is £63 really the number to beat?

If holding recorded music revenue constant at £1.3bn is the aim, in appealing to the engaged 40% on a free service Spotify could give a

chunk of this value away, hurting overall revenues. However, if all 40% opted in to a paid service, then retail revenues would more than double to over £2.8bn. Put into a worst case scenario, if the entire music buying population converted to services like Spotify, and only half of them converted to subscription, the industry would still break even. If Spotify is able to "re-engage" a portion of the "disengaged 60%" (30 million people) into a subscription model, even as few as one in five, then the raise the retail value of recorded music rises past the two billion pounds watermark.

In our previous report, titled "Adding up the Music Industry for 2008", we carved the music market up into Business-to-Consumer (B2C) and Business-to-Business (B2B) dimensions and found that 75% of industry revenues were earned through B2C channels, while 25% were earned through the more indirect B2B channels. Furthermore, the retail value of recorded music in the UK for 2008 came to £1.3 billion, representing only 1/3 of the total music industry pie. Hence the so-called disengaged majority – a full 60% of the UK population - may in fact engage with music through a variety of legal alternatives to music retail (e.g. live venues, YouTube, BBC and commercial radio). Importantly, some of these alternatives are provided for free at the point of consumption, with compensation taking place further up the supply chain.

So, £63 offers a benchmark for the average revenue per consumer the music industry is looking for. However, music service providers such as Spotify do not share in the revenue limitations experienced by the

recorded music sector, which is largely limited in its recoupable scope to the chirping of retail tills, direct licenses and other service fees. Instead, service providers such as Spotify speak rather openly of the capacity for such businesses to capture value from download sales, service fees, advertising dollars, merchandise and ticket sales, etc. Notwithstanding these diverse channels through which UK fans ultimately experience music, the concerns highlighted in our Adding up the Music Industry report remain critical here; it's vitally important that you read beneath the top line and understand the eco system. Sure, recorded is down and live is up – but it's recorded music which does the primary investment in new talent. Now, and given the damage already done to investment calculations by P2P, therein lies a 'conveyor belt' style question: who's going to invest in the career development of artists to create the heritage acts of tomorrow?' It's not just economists who raise concerns about how that diverse portfolio of revenue streams get funnelled back into investment in new talent.

#### Can we expand our understanding of A-R-P-U?

At this point, we would assume the reader is not only swimming in a pool of A's, R's, P's and U's, but also beginning to sense that the methods behind each of these letters in the alphabet soup are far more significant that might often be assumed. And so, in the following sections of this brief, we will dig more deeply into the nature and implications of four-letter buzzwords.

#### Who put the U in ARPU?

ARPU sounds like such a simple concept: total revenue divided by total number of users. But, as with any metric, there is an incentive to tweak the number to cast a favourable light according to the audience. In short, a user number is only valuable when accompanied by clarification of how a user is defined and how these users are measured.

The 40% population penetration figured quoted by the BPI was generated from a self-reporting survey – not actual consumer purchase behaviour. Discreet user and usage statistics are much easier to gather for online music services since users leave a digital trail of their behaviours that can be aggregated and analysed.

For advertising based services, a general rule of thumb is the larger the user base the better. But there is a big difference between "registered" users and "active" users. It is not unusual for users to sign-up at no cost for digital services, experiment a little and then never use the service again. 2.7m Spotify users sounds like a large number, but how is a user defined? In the UK mobile industry, casual or prepaid users without a subscription are only included in the user count if they have performed a billable event in the preceding 90 days. Elsewhere in the world different definitions for "active" users are used.

What about multiple-accounts? Most people tend to have multiple email addresses. Some people have multiple identities on social networks. The mobile industry tends to measure devices rather users. For example, a user with mobile data access from both their cellular and laptop will count as two users rather than one. For fixed broadband companies, households count as a "user" even though two adults and two children might live there. Are services such as Spotify counting only registered, digital identities as users, or does any visitor off the street count as a customer?

#### Who put the A in ARPU?

We all know what an average is: if one customer spends £20 per month

on music, and another customer spends £30 per month, an average of £25 has real meaning in describing the market. Everyone in the pool is a buyer, and on average these buyers spend £25. The explanatory power of this average breaks down, however, when the behaviours differ dramatically. For example, if I've had four bottles of beer and you've had none, the average suggests we have two bottles for each of us. Yet I'm over my limit while you're still thirsty. Translated to music industry terms: if I'm spending £40 on CDs every month and you're hoarding music from Mininova, then the average of £20 may be meaningless.

The period over which "Average" is calculated also has a great effect. The data in the BPI report is based upon annual spending and therefore attempts to smooth the seasonal purchasing within the Christmas gift season. However, most telecoms companies report "Average" data every quarter. In a declining market, yearly data has the effect of smoothing an otherwise intimidating and steep decline.

#### Who put the R in ARPU?

Unfortunately there are more tricks in revenue definition in that of a user. The first tussle relates to the timing differences of revenue recognition – accounting regulations often set the bar for this tussle. For example, Apple's published reporting of iPhone revenues are extremely hard to decipher and correlate with "Average Sales Price" because of their interpretation of revenue recognition standards. The second tussle relates to provisions for things such as bad debts – are provisions tossed out of top-line revenue, or left within and then tucked under the mattress for safe-keeping?

For telco's, a significant revenue recognition problem is the treatment of wholesale revenues: depending upon the structure of deals with content companies, revenue could either be reported gross or net (of upstream content charges). Obviously the former is good for inflating revenues and the latter for inflating and/or protecting margins. Music rights holders are more than familiar with this debate over gross vs. net revenue when calculating royalties owed on contracts and the value of licenses.

### Does Customer Lifetime Value (CLV) offer another way?

Innumerable companies claim they deploy new services to increase ARPU, and therefore increase margin and profit. But as an internal metric, ARPU can be particularly useless. Therefore, and to add to the buzzcronym pile, there has been a shift towards CLV or "Customer Lifetime Value".

CLV has the advantage of examining services on the incremental margin delivered to particular customer segments with different usage profiles. Considering the total cost and benefits of a customer over the long term allows for the recognition and modeling of both cannibalisation concerns and churn characteristics. There is no "standard" one size fits all CLV model, but their inputs include concepts like churn, discounting, cost of customer acquisition and retention, often involving aggregated assumptions about the future behavior of an 'average' individual.

Arguably, the concept of CLV makes important sense when you consider the longer-term trends in consumer behavior. In the 'Adding Up' report, we raised a 'conveyor belt' concern with regards to investment, when the existing heritage acts fall off (stage) there is no-one coming through to replace them. We can apply that same visual conveyor belt concept to the observation that fewer young people (12-19) are buying albums as compared to that cohort in the past, and they are spending

increasingly less on recorded music overall. Now, this younger bracket might be buying digital singles. As such, as these teenagers become twenty-and-thirty-somethings, buyer behaviour might evolve back to that of the 1950's, the age of the music single – for the rest of this cohort's lives.

For sure, CLV is subject to the same "lies, damn lies and statistics" truism. How long is a lifetime? What is the appropriate discount rate (risk free, return on capital, risk of the venture, etc)? Who is a customer? The list could go on, but customer lifetime value is beginning to replace ARPU as a key decision driver. As such, just as the music industry might catch up with the ARPU train, that train may have left the station, with CLV being the next, but not final, stop. Regardless, we do feel it is important for the recorded music sector to engage this concern for the lifetime value of a customer, and even consider this value in the context of the music industry at large.

#### Wrapping up the acronyms

While services such as Spotify are openly suggesting the industry needs to think in terms of revenue per user, when these providers say ARPU, they mean average revenue earned per user. Money earned, not money hoped for. As such, ARPU is a metric for understanding customers, and

finally, the relevance of the 'A' in ARPU trades off against the difficulty in understanding the 'U'.

When an artist refers to 'putting a new record out' in 2009, the meaning of those words suggests a physical act and a one-way flow of information. Simply putting a record out does not necessarily lead to real insights - who bought the record, what else might that customer buy, how often did they listen to the record, what alternate order to the album did they prefer, to how many people did they recommend the record to... and so on. Telco's and ISPs value their customer base so much because the network infrastructure offers the added value of understanding customers beyond the first transaction. If retailers and rights holders want to refer to ARPU, it is pointless ignoring the benefits that inform the concept and important to adjust transactional mindsets to work with this approach to business. Regardless of which acronym we all end up with, the three words customer, lifetime and value have special stand alone importance to a music industry which has lost so many customers in the past decade, and now needs to win them back.