KONTROL MEDIA

Making Online Profitable: The Case for Strategic Collaboration between Global Carriers and the Media Industry

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Executive Summary

The premise of this paper is that the media industry and the global telecommunications carriers can develop huge new revenue opportunities in online and mobile content distribution, but only if they collaborate much more closely than they do now.

Indeed the two industries *need* to collaborate, because both face long-term threats to lucrative, long-standing revenue streams.

Telecommunications carriers have minted money in high-margin wireless plans, eagerly purchased by an expanding market that has reached at least an estimated 3.3 billion subscribers worldwide[1]. But in markets like the U.S., with 87% market penetration[2], there aren't many more new users out there, so carriers are beginning to see price wars for wireless voice traffic. Wireless data traffic is exploding, but tiered data pricing strategies may not prosper if Google introduces new subscription models; if consumers largely access the Internet from free Wi-Fi; or if carriers are unable to charge for Internet use independent of access method. In a worst case scenario, carriers face the same long-term contraction in wireless margins that they have already seen in local and long distance voice, and enterprise data.

Media firms had their own challenges. Studios saw a 13% drop in DVD sales last year[3]. TV networks faced resistance from national advertisers who spent only 41% of their media budgets on TV in 2009, versus 58% in 2008[4]. Music and print publishers, of course, have already taken crippling hits. All media firms know that they must make digital content distribution work better in online and mobile channels, but grapple with the fact that so far, it's been "digital dimes" versus traditional media dollars.

Turning digital dimes into digital dollars will require at least three things that the media industry needs and which carriers *could* deliver by deploying substantial, under-utilized assets in a cloud-based platform:

1) Better consumer information - comprehensive, personal, and real-time - to better target, serve, and measure a fragmented online audience.

2) Efficient, lower-cost delivery and transaction mechanisms to reach this fragmented audience across online and mobile channels, and across the many different screens that consumers use – anywhere, anytime.

3) More effective anti-piracy measures that do not inconvenience legitimate users.

Advanced carrier media platforms could offer completely new capabilities based on intrinsic carrier strengths, such as massive subscriber databases and the ability to leverage this information in real-time. Personal profiles would accompany **opt-in** subscribers during online sessions, interacting with websites

[1] Plunkett Research. "Wireless, Cellular & RFID Industry Trends **-** Introduction to the Wireless Industry"
[2] Plunkett Research. "Wireless, Cellular & RFID Industry Trends **-** Introduction to the Wireless Industry"
[3] Los Angeles Times, February 1, 2010. "Sony Pictures to Cut 450 Workers as DVD Sales Decline"
[4] Association of National Advertisers / Forrester Research Survey, February 8, 2010. "TV Advertising Budgets are Under Siege"

and search engines to provide a more relevant, convenient, and interesting user experience, as well as special discounts and savings.

Carrier media platforms would also offer “everything-in-one-place” cost efficiencies that would leverage carrier infrastructure, scale, and expertise to streamline transactions and distribution – as well as provide hand-offs to ensure session continuity for users if they change screens or cross borders between carriers.

Carrier media platforms could also monitor cyberlocker file hosting services to mitigate the theft of intellectual property.

The end result would be new capabilities and economies of scale for a better user experience, more effective and measurable advertising with hyper-targeting of large audiences, enhanced content discovery, reduced marketing and distribution costs, and tighter intellectual property protection from a platform supporting both carrier-branded and 3rd party services.

Nothing here is intended to overlook or minimize the obstacles involved. Consumers will need transparency into how their personal information is used, ironclad assurances that it will be protected from identity thieves, and services that provide value, not creepy intrusions. Value-added service providers will need fair access into carrier media platforms to avoid anti-trust issues. Carriers will need to integrate typically siloed online, mobile, (and TV) subscriber databases. Industry standards will have to be developed for real-time profiles as well as for hand-offs, such as video roaming, from one carrier’s media platform to another. Fair use issues in peer-to-peer and file hosting networks would have to be resolved.

But all of this can happen if the payoff is large enough and if everyone in the media ecosystem benefits, including carriers, publishers, advertisers/agencies, aggregators, device manufacturers, value-add service providers, and consumers.

And it will happen faster with a change in attitudes. The major players in the media ecosystem, particularly the content creators, need to regard carriers as much more than “pipe” providers, preferably as true strategic partners. Carriers, in turn, need to open up their “walled gardens” and be more flexible. Everyone needs to compromise on who, if anybody, “owns” the consumer.

This paper is intended to help frame and facilitate this discussion.

Why carriers need new revenue sources

With long distance, local voice, and enterprise data transport now commoditized, and with mobile voice, long a major growth engine, seeing price wars, carriers need to find new revenue sources.

Carriers hope to capitalize on the dramatic increase in wireless data traffic – but how? Wireless data usage has grown 3000 % in the last three years, and is expected to grow another 4000% by 2014[5]. This is great for Apple, which will make a lot of money from iPhone and iPad sales. It is great for Google, which will benefit from increased search engine queries as more and more web surfers access the Internet from mobile devices.

For carriers, however, this deluge of wireless data traffic has so far created at least as many headaches as revenue opportunities. Much anticipated 4th generation (4G) mobile networks will relieve growing congestion from app, video, social media, web browsing, and gaming demands – but how will the carriers best monetize this traffic and this enormous network investment?

Tiered monthly pricing plans for wireless web sessions are certainly one option. However, with newer phones, users can access the Internet from Wi-Fi hotspots, bypassing their carrier's 4G access, and surf the web as much as they want, at no cost. Why would users buy expensive wireless data plans from a carrier if many of their Internet sessions can occur from locations that have free Wi-Fi? Perhaps carriers will be able to charge for Internet use, independent of the Internet access method – but even so, these plans would face their own price competition. Bandwidth gets commoditized.

App sales are another option. Carriers are exploring their own app stores and have launched the widely publicized "Wholesale Applications Community", intended to allow developers to deploy a single application across multiple devices and across multiple carriers - without having to negotiate with each of them. This initiative threatens the proprietary app stores of Apple, Blackberry and others, and would greatly facilitate mobile ecommerce with badly needed standards. But it will take time, cooperation from a skeptical developer community, face strong competition, and there may not be a lot of money in it for carriers. Apps help sell phones, but most apps themselves are free. In a very crowded app universe, apps are a tricky "hit" business whether ad-supported, user-paid, or free.

Some carriers are introducing their own branded cell phones. But these face a very crowded market and competition from Apple and other well-established brands, making them an unlikely source of major carrier revenues or profit.

Change the Game and Prosper

In this changing, merging, online and mobile environment, carriers have to compete with Apple, Google and other non-traditional rivals. But they do not have to compete on Apple's or Google's turf, against their strengths and on their terms, with reactive, "me-too" initiatives. Instead, carriers can leverage core assets that Google and Apple do not have, indeed these assets would actually add value to Apple and Google products, to provide badly needed online services and drive profitable carrier growth.

The big play is to add value to Internet activity, not just provide Internet access and Internet transport. Last year, e-retail transactions totaled $155B in the U.S. alone[6], while U.S. 2009 online interactive

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[5] Local Techwire, March 24, 2010. "As Sprint prepares for video calls, wireless execs seek more bandwidth"

[6] Forrester Research. "Forecast: U.S. Online Retail Sales, 2009 – 2014"

marketing spend, including mobile, social media, email, display, and search, was another $25.6B[7]. Both the online transaction and online marketing segments are growing rapidly. And both segments need solutions that carriers can provide.

Barry Diller, at Advertising 2.0 in June 2009, said that "one of the greatest bars to buying anything (on the Internet) is the steps it takes to complete a purchase". Diller held up Amazon's "one-click" and Apple's App Store "absolutely a blink" billing systems as what needs to broadly occur across the Internet. "That little thing – that in fact that you scroll it, you do it, it comes, everything else is taken care of, is the answer to what's going to happen on the Internet…. It's absolutely going to happen."[8]

At the 2010 "Media Summit" in New York City, a recurring theme was advertiser demand for better ad campaign reach, targeting, engagement, and measurement.

Better consumer information - comprehensive, personal, and real-time – is critical to enhancing both online advertising and online transactions, and carriers could provide it.

AT&T, for example, has massive "reach" with 77 million wireless subscribers[9] and many additional millions of broadband and IPTV subscribers. The company knows a lot about each subscriber in order to bill them. The company also manages and maintains every online, mobile, or IPTV session, start-to-finish. AT&T *could* leverage subscriber information in real-time, interacting with websites and search engines to make offers more relevant and transactions more seamless. The ability for advertisers to data-mine a massive subscriber database and serve ads to tagged profiles, would make it finally possible to hyper-target large audiences in a cost-effective and fully measurable manner.

Subscribers will need a compelling opt-in offer, ironclad security assurances, and an improved online experience. Advertisers will need superior results. Publishers, retailers, and other players in the online ecosystem will need a real-time profile standard they can interact with, delivered by credible technology partners with millions and millions of "eyeballs".

Carriers have the expertise, resources, credibility, and subscriber eyeballs to make this work – and the strategic need to grab their fair share of a massive, expanding e-marketing and e-transaction market.

Media Firms Search for Answers

The media industry knows the importance of digital distribution, and carriers could make digital distribution business models much more profitable by mobilizing untapped assets on an e-commerce platform. Why haven't the two industries been working together to move forward?

If carriers were distracted by the hugely profitable growth in standard wireless services, much of the media industry has been focused on TV, where the advertising and paid subscriber numbers far exceed

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[7] Forrester Research. "US Interactive Marketing Forecast, 2009 to 2014."

[8] ZDNET, June 10th, 2009. "Barry Diller: The Internet 'Absolutely' Will Become a 'Paid System' - Time Projection: Within 5 Years."

[9] Local Techwire, March 24, 2010. "As Sprint prepares for video calls, wireless execs seek more bandwidth"

those on the Internet, and where the major distribution infrastructure is provided by cable MSOs, not carriers.

But the media industry is very aware of the long-term trends. That high-quality content can originate online and be viewed in the home, on a TV screen. That viewers increasingly consume content anywhere, anytime, on the most convenient screen. That advertisers want to measure an ad campaign across all platforms – TV, online, and mobile.

Major media industry initiatives reflect this.

The "CIMM" initiative, (Council for Innovative Media Measurement), is comprised of 21 major advertisers, advertising agencies, and TV networks focused, in part, on "developing cross-media measurement of video content that moves from TV to the internet and mobile media channels".

The "DECE" (Digital Entertainment Content Ecosystem) initiative - one of two major cloud-based "digital locker", "content portability" efforts to let consumers purchase content once and view it anywhere, anytime, on any screen - has 48 member companies, including Comcast.

But *neither major initiative includes carriers*, by far the dominant provider of online and mobile infrastructure, as well as an increasingly powerful presence in subscription TV with such services as U-Verse and FIOS.

As the center of gravity for media distribution moves online and across platforms, the media industry cannot solve the critical problems it faces without working much more strategically with the carriers, and without the emergence of innovative, cloud-based, carrier media services.

Strategic Challenges with Online and Mobile Media

Several strategic challenges with online and mobile content repeatedly emerged in our discussions with media industry executives:

1) **Advertising ROI**. Advertisers are demanding better results and better measurement of those results across mobile, online, and TV platforms.

2) **Getting Consumers to Pay.** How do you get consumers to pay for more digital content – and pay more for it when they do?

3) **Intellectual Property Protection**. How do you curb piracy of online content without irritating legitimate users?

4) **Enhancing the Consumer Experience**. Digital content consumers expect an increasingly convenient, relevant, interactive, and high-quality user experience, with seamless hand-offs between screens – and eventually across borders and carriers.

5) **Content Discovery**. There is a need for better video "serendipitous" search tools that introduce consumers to content that they want – but didn't know they were looking for.

6) **Anywhere, Anytime, Any Screen Distribution.** The explosive growth of different mobile devices, video formats, and operating systems make it difficult to economically deliver content in a manner that meets user expectations for a seamless, 7x24, quality experience – or advertiser needs for cost-effective reach.

Carriers have been missing from the discussion, and are a major part of the answer.

Advertising ROI

As long as consumers expect so much of their TV, online, and mobile content to be "free" – advertising will be a critical revenue source for publishers.

But even though consumers surf the Internet at least as much as they watch TV, and considerably more than they read newspapers or magazines, this is not reflected in where advertising dollars are spent. Online/ mobile U.S. ad spend is still just 12% of total U.S. ad spend[10].

While U.S. online/mobile ad spend is expected to more than double by 2014, and reach 21% of the U.S. total[11], this percentage will still not equal the percentage of time that consumers spend online.

This is because of complexity and cost. Advertiser demand for better reach, relevance, engagement, and measurement constrains all advertising budgets, regardless of channel, but online/mobile advertising remains particularly fragmented – harder to buy than TV, harder to distribute across different screens, and harder to measure.

Mobile advertising is especially complex, which is why mobile ad spend remains tiny in comparison with its importance as a channel and its obvious attractions for more targeted, location-based, actionable messaging with huge reach.

In its "US Interactive Marketing Forecast, 2009 to 2014"[12], Forrester Research states that "Mobile remains one of the most anticipated, least adopted interactive channels in the advertising mix. But complexity around metrics and limited mobile consumer data stifles mainstream mobile marketing today."

An innovative cloud-based carrier media platform, deploying previously untapped carrier assets, would address these critical issues for advertisers – and the publishers who depend on them.

With massive subscriber bases across the three basic platforms – mobile, online, and TV - and an intrinsic ability to capture complete subscriber session data, carriers are uniquely positioned to give advertisers all of the information they need to hyper-target large audiences and measure campaigns precisely.

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[10] Forrester Research. "US Interactive Marketing Forecast, 2009 to 2014."

[11] Forrester Research. "US Interactive Marketing Forecast, 2009 to 2014."

[12] Forrester Research. "US Interactive Marketing Forecast, 2009 to 2014."

As a first step, this requires linking ITV, online, and mobile subscriber databases – creating one subscriber profile that reflects activity and preferences on all three platforms. This is no small undertaking, but it is essential for providing cross-platform analytics, and a competitive advantage versus non-integrated databases.

The second step is to get subscriber permission for their personal profile to "travel" with them in real-time during broadband, mobile, or TV sessions – interacting with websites and search engines, protecting the subscriber's actual identity, and continuously updating to reflect session activity.

Getting subscriber opt-in for using real-time profiles requires ironclad security assurances and substantial benefits.

Carriers have an outstanding track record in safeguarding customer information. At a minimum, security for real-time profiles would be provided by:

1) Requiring PIN verification at the start of a session.

2) Encrypted exchanges of information between websites and search engines.

3) Additional ID verification for any financial transactions

4) Profiles would not contain subscriber name, address, phone number, or other direct identifiers.

There would also be substantial benefits for subscribers who opt-in:

1) **Discounts.** This could be a lower rate for mobile, broadband, and ITV services. Or special offers from publishers for online content.

2) **Convenience.** The consumer is no longer asked to identify who they are or asked to enter time-consuming information.

3) **Relevance.** Ads and offers are made with complete, updated knowledge about the individual. Consumers would not get served more ads – just better ads.

4) **Engagement.** Extended "conversations" also become more relevant with context provided by more complete user information.

The benefit for advertisers and publishers would be a comprehensive, cross-platform, continuously updated database with massive reach. Audience targeting would be more granular and reliable – but large enough to be cost-effective. Measurements of mid- and post-campaign performance would be based upon complete, precise, and up-to-date information. And advertisers could further reach out to those who saw the ad, on an opt-in basis, for awareness, favorability, and intent and other brand-building purposes.

Getting Consumers to Pay

How do you get consumers to pay for more online content? Fifteen years into the online era, consumers are used to getting most news and magazine articles online for free. Many download the latest films from sites like RapidShare and BitTorrent. Many still get their music from peer-to-peer file sharing networks.

Barry Diller, for one, is optimistic. In his keynote address at the Advertising 2.0 conference in June, 2009, Diller said "I absolutely believe the Internet is passing from its free days into a paid system. Inevitably, I promise you, it will be paid. Not every single thing, but anything of value".[13]

These are welcome thoughts for print publishers facing a steady erosion of their subscriber base. Or for studios who saw DVD sales decline for the first time in 2009, and are now experimenting with digital distribution ahead of DVD release. But how do you make it happen? How do you change online consumer behavior?

There is no silver bullet. As discussed earlier, Diller believes that "one-click" transactions are a major part of the answer. But there are many other ingredients. The solution will be better execution in a number of equally important areas:

- Identifying which consumers place a premium value on which content.
- Micro-targeting these consumers with effective promotions.
- Making it very easy to buy.
- Delivering a truly premium and differentiated experience with value added bundles, clever interaction, higher-quality video, or higher quality audio.
- Protecting this premium content from piracy.

Strategic collaboration with carriers will be essential in every area. No one else has a larger customer base for micro-targeting large audiences or is better able to simplify transactions – whether subscription, pay-per-x, purchase-to-own, or micro-payments - with opt-in, real-time profiles. No one else owns and operates more online infrastructure to differentiate premium content with Quality-of-Service (QOS) options for video, audio, and interactivity. And no one else knows more about what is going on in the network to help control piracy.

Benefits to content publishers would include an enhanced corporate brand, more visibility for branded, higher-margin destination portals, and more value for branded premium content – all made possible through superior content discovery and enhanced consumer experience.

[13] ZDNET, June 10th, 2009. "Barry Diller: The Internet 'Absolutely' Will Become a 'Paid System' - Time Projection: Within 5 Years."

Promoting Premium Content

For example, carrier assets could help studios market new releases to a more targeted audience:

- The studio maps target demographics against carrier opt-in subscriber profiles and preferences.
- The carrier tags and categorizes database extracts to enable delivery of different messages and trailers to different segments.
- Target audiences would receive an SMS message, a banner ad on their mobile browser home page, or in- app teasers.
- Those who DO respond to the teaser messages by going to the movie website or WAP site would be served trailers optimized to their profiles and their devices.
- Those who DO NOT respond would still be served ads and trailers optimized to their profiles as they surf the web – because their profiles were tagged for the campaign, move with them throughout online sessions, and interact with every website visited.
- Subscriber engagement with ads and trailers – and interactions with their friends – could be tracked through this and future sessions. Did they tweet or call friends etc.
- Campaign performance would be logged in the carrier database for reporting against metrics
- Benefits would include:
    - Proactively targeting and segmenting a massive audience
    - Optimizing the message that they see
    - Engaging in ongoing conversations with a larger audience that can lead to cross-selling opportunities and perhaps the ability to fine-tune the movie in response to ad feedback
    - Measuring campaign impact more precisely.

"One-Click" Transactions

Carriers would extend and augment their extensive, bullet-proof transaction platforms to serve content consumers, providers, and merchants. Supporting both carrier direct-to-consumer content packages and 3rd party storefronts, these platforms would provide everything required to ensure convenient, comprehensive, secure, flexible, cost-effective, 7x24x365 transaction capability:

1) Ability to interact with a "Carrier-Standard Real-Time Profile" – an opt-in user profile with comprehensive information from carrier subscriber databases that travels with consumers during online and mobile sessions. Real-time profiles save time and data entry hassles by providing information to transaction engines, reducing shopping cart abandonment. Real-time profiles also provide preferences and context essential to effective cross-selling and

content bundling suggestions – as well as the selection of the right ads for “free” ad-supported content.

2) A range of payment options including purchase-to-own, pay-per-x, subscription, “free” ad-supported, and micro-payments.

3) Content bundles including content, apps, services, and contests.

4) Scalable bandwidth and processing to handle surges in customer demand.

5) Network monitoring and routing infrastructure that ensures immunity from denial-of-service attacks.

6) Secure, PCI-compliant transactions.

7) Efficient back-end processes to ensure that all parties – content providers, merchants, writers/composers/talent - get paid.

There are excellent transaction platforms out there, but carriers have the experience, native infrastructure, and technical expertise to raise the bar, particularly with the introduction of in-session, real-time profile capability. All of which could further reduce transaction costs, improve the consumer shopping experience, increase impulse and add-on sales, and reduce risk.

Flexible Delivery

Carriers would build a cloud-based content distribution infrastructure providing:

1) Ability to interact with a “Carrier-Standard Real-Time Profile” – an opt-in user profile with comprehensive information from carrier subscriber databases that travels with consumers during online and mobile sessions. Real-time profiles provide information that simplify and save time with any consumer request or session adjustment – such as identifying the user screen and viewing preferences – thereby maximizing user convenience and facilitating in-session hand-offs between carriers.

2) A comprehensive library of globally licensed content for purchase, subscription, pay-per-x, or “free” with ads.

3) All content available in multiple formats to support different device/OS/browser/video player combinations

4) Content can be streamed or downloaded.

5) Tiered Pricing with range of audio and video quality, including HD.

6) “Digital Content Locker” formats such as DECE and Key Chest to let users store content purchased elsewhere.

7) Intellectual Property protection in an LTE Internet Protocol environment with user authentication services correlated to real-time profiles and SIM cards and the monitoring of session activities that violate norms.

8) Hand-offs to other relevant carrier content distribution networks as necessary to support video roaming.

9) Access to these services on a wholesale basis to 3rd party storefronts.

Intellectual Property Protection

Nothing stirs more passion and anger with content publishers than the theft of their intellectual property. Nothing irritates online consumers more than anti-piracy measures which inconvenience everybody. From a carrier standpoint, there has been little to gain from trying to navigate this minefield. But as Internet Service Providers, no one is better positioned to mitigate online piracy than carriers. – if the payoff is there.

Carriers have the most visibility into the direct-download-cyberlockers that now exceed peer-to-peer networks as the biggest threat to content publishers. Cyberlockers offer simplicity, anonymity, and high speed file sharing for people who want to get valuable content without paying for it.

However, there has been a lot more downside for carriers to play cyber-cop than upside. A lot of cyberlocker traffic is legitimate and some may fall into gray areas. At a minimum, carriers risk losing subscribers when they intrude upon legitimate traffic and at worst, they risk lawsuits.

Content publishers could lobby for new regulations that force carriers to take a more active role in curbing piracy. Or they can make carriers strategic partners. If carriers can participate in and profit from content transactions, rather than just carry the data, they will have more to gain by identifying and cracking down on content thieves.

Publishers have long argued that online piracy has had a huge impact in lost revenues and lost profits. If so, then they have every reason to find a way for carriers to profit from solving the piracy problem

Enhancing the Consumer Experience

Selling premium content, delivering better results for advertisers – even reducing piracy – all depend upon providing a superior online experience for consumers. And the key elements remain convenience, relevance, engagement, and quality. Don’t bombard me with messages I don’t care about. Don’t send me the same message, again and again. Make your offer interesting to *me*, let me engage or dig deeper in different ways, and make it easy to buy. If I’m buying content, enhance it with bundles, features, interactivity, and audio/video quality that differentiate it from stuff that I can get for free.

All of the above is easier said than done. Giving individuals what they want means knowing as much as possible about *that* person, at this time, right now. But how do you deliver a personal, custom experience to millions of online consumers?

You can't do it unless millions of online consumers each cruise the web with an up-to-date, real-time profile that interacts with search engines and web sites to optimize and personalize their online experience.

Add "one-click" transactions, quality-of-service guarantees, ability to seamlessly distribute content to the desired device, support for video-roaming "rescreening", support for in-session service requests – and you are getting pretty close.

Carriers have the subscriber base, the online and wireless reach, the bandwidth-on-demand, the in-session awareness of where subscribers are going, security expertise, hand-off expertise, and financial resources to make this happen.

Content Discovery

The immense amount of information on the Internet, makes it hard for consumers to discover content they would like to buy, but have forgotten about, or don't even know exists. This makes it hard for publishers to get full value from their long-tail inventory, their libraries of great books, research, music, and movies that no longer have any "buzz", or which deserved to and never did.

The key, as always, is to know as much as possible about individual consumers - preferences, past purchases, recommendations and comments they may have made in social media – and reach them with spot-on suggestions.

This happens to some degree today on Amazon.com, Netflix, and other well-trafficked sites where the retailer knows a lot about their customers. If you are in their site, they can make suggestions based upon what you bought before, or from what you just clicked on.

But Amazon.com and Netflix don't know what you did before you came to their site, or after. So even their customer profiles are incomplete and their suggestions not as productive as they could be.

Content publishers depend a lot upon these large retailers, because it has been hard for publishers to build branded destination portals of their own. And as leading media industry authority Harold Vogel has noted, "marketing costs remain inordinately high as both the old and the new (content) compete for the attention of wide-ranging, yet fickle audiences."[14]

But business would improve for content publishers with three developments:

[14] Vogel, Harold L. *Entertainment Industry Economics – A Guide for Financial Analysis,* 7th Edition; Cambridge University Press: 2007, page 92

1) Higher average purchases per user at leading retail sites due to improved cross-sale and browsing suggestions.

2) Better content search tools that deliver more personalized results.

3) Ability for publishers to cost-effectively "micro-target" consumers.

The widespread adoption of real-time profiles – best facilitated by the infrastructure and economic clout of the leading carriers - would help in all three areas.

Content search tools, whether site-specific from Amazon.com or general web from Google and Microsoft, will become increasingly intelligent in a future Web 3.0 environment, able to understand and link different data sets via semantics analysis. And these search tools will be able to act upon the preference, purchase, and recommendation data contained in real-time profiles to make searches more personal and precise. This will undoubtedly stimulate more content impulse purchases and grow the overall market for all content publishers.

But proactively micro-targeting consumers, with the use of data-mining and real-time profiles, will give publishers the opportunity to *promote their own content to the people most likely to buy*; drive those consumers to publisher-branded destination portals where the publisher can get better margins; and give publishers the opportunity to use *their* site-specific content search tool, interacting with real-time profiles, to make superior personalized suggestions from superior information.

Carriers will be indispensable in making this happen.

Anywhere, Anytime, Any Screen Distribution

Making it easy for people to see their favorite movies and TV shows at anytime, anywhere, and on any device is no easy task. But it is something that has to be done to meet consumer and advertiser expectations, and to grow the market for digitally-distributed content – particularly with the enormous and barely tapped mobile audience.

There are multiple issues to consider:

1) **User Authentication**. Users need to be positively identified, both to safeguard publisher intellectual property and to make sure that the right person is billed. The process must be very secure and must also minimize user hassle with a one-time sign-on that will work for an entire viewing session, across multiple devices and screens.

2) **Digital Rights Management**. Does this consumer have the right to view this video clip on this device, from this location, at this time? The media industry's DECE and Key Chest initiatives are developing rules and standards to make sure that consumers can see content they have *previously purchased* on any device, no matter where they are in the world. Comcast's "TV Everywhere" initiative will permit Comcast subscribers to view their shows from anywhere. Similar rules, standards, and mechanisms will have to be in place to

authorize new consumer purchases or ad-supported viewings of new material, whenever, wherever, on whatever.

3) **Transactions and Billing**. Consumers need a safe payment mechanism with the flexibility to support subscription, purchase-to-own, pay-per-view, view-with-ads, and micro-payments

4) **Transcoding**. Different devices require different audio and video formats. Where the devices are and how they are connected to the network impact the bit rate and screen resolution that can be delivered. There are hundreds of different possible combinations, but customer satisfaction requires the right match. So content distributors need to sense the consumer device – TV, PC, *which* mobile phone - and package content to meet the circumstances, a process known as transcoding.

5) **Ad Insertion**. The anywhere, anytime, any device revolution must be monetized, and it will not be via consumer purchases alone. Consumers will continue to expect a lot of "free", a.k.a. ad-supported content. But video ads have barely penetrated the mobile marketplace due to the complexity and cost of delivering them across multiple devices. Moreover, advertisers want to take advantage of the mobile medium, with ads tailored to that consumer, in that location, at that time of day or week. All of this will require an infrastructure that knows the consumer profile and status, and can dynamically insert the best ads with the video clip – transcoded the right way.

6) **Re-Screening**. Consumers will increasingly expect content to follow them easily from device to device, from laptop to mobile phone, from mobile phone to iPad, and so on. They will also expect video content to follow them seamlessly as they go from one country to another, or roam from one carrier to another.

All of this will require expertise to execute, and scale to deliver cost-effectively. It will require a cloud-based platform that can deliver globally across fixed line and wireless environments; Scalable storage to support user authentication, digital rights management, transaction, and libraries of content transcoded in multiple formats; Scalable bandwidth to provide promised quality of service; Standards and agreements to support video roaming; Millions of in-depth consumer profiles and the ability to deploy them in-session, in-real-time, securely and seamlessly, to the benefit of consumers, advertisers, and publishers.

It will require the resources, expertise, subscriber base, and native, cross-platform wireless, Internet, and IPTV infrastructure that carriers can provide best.

Conclusion

The center of gravity for content distribution, whether for print, music, or video, is shifting online. Newspapers and music labels have already felt the impact in terms of lost revenues and profits. Studios and TV networks are beginning to see the impact as DVD sales decline and TV viewers access more of their favorite shows on the Internet.

So it is increasingly important that publishers find ways to make online content distribution more profitable than it is today with more effective advertising, more paying customers, and less piracy.

It is important for carriers as well. The explosive growth in online video places demands on Internet and mobile infrastructures, but may not be easily monetized through data transport pricing plans. Carriers must find ways to add value to the Internet activity they transport – whether initiated from laptops, iPads, or mobile phones – and charge for this added value.

Carriers, publishers – and their advertisers - can solve the riddle of online content profitability if they work together.

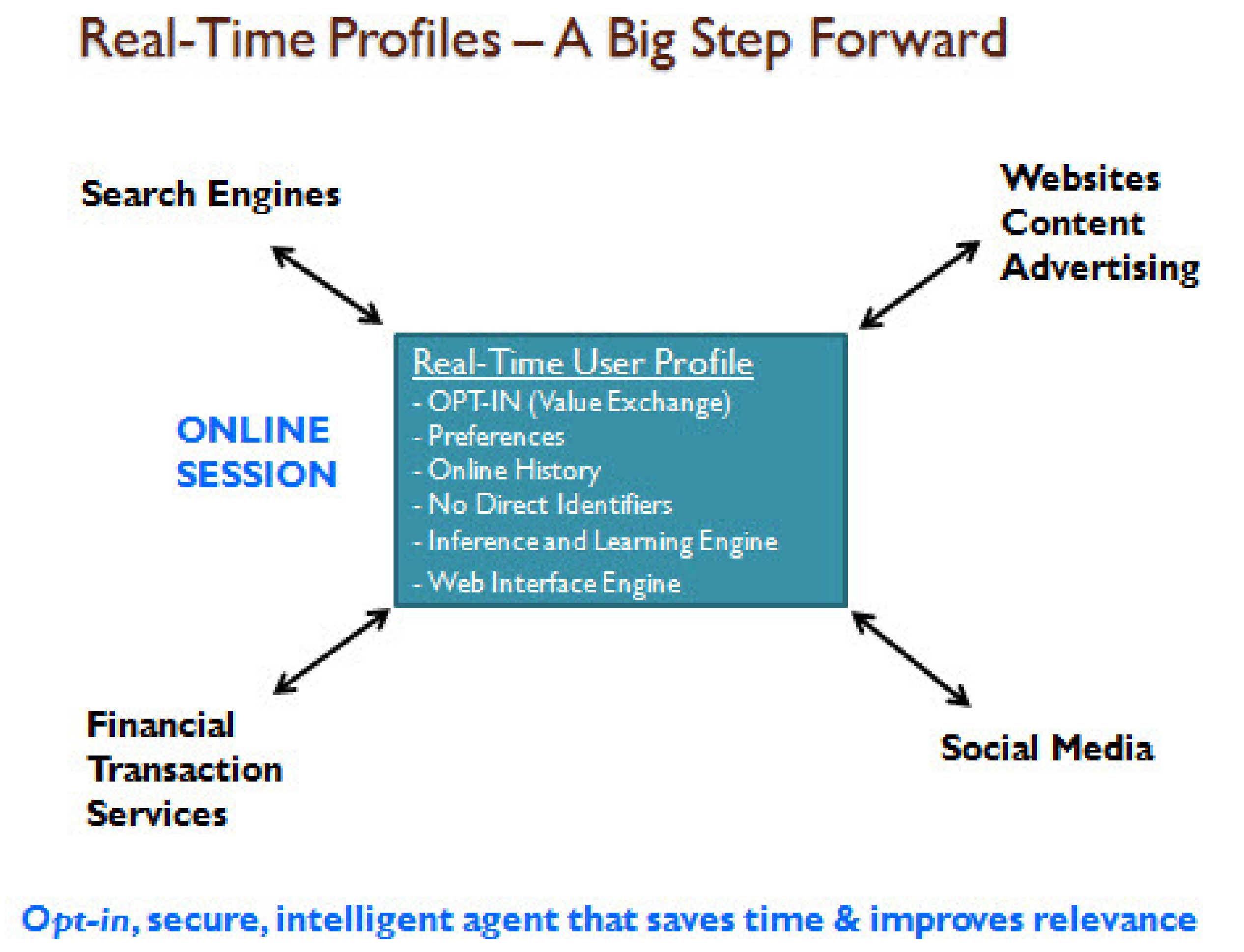
Carriers have huge subscriber databases with profile information. They maintain subscriber online sessions from start-to-finish, transporting every keystroke and every interaction. Carriers dominate the core Internet infrastructure necessary to streamline transactions and distribution across platforms and screens – and to curb illegal downloads from cyberlockers. No industry has more assets to deploy if it so chooses.

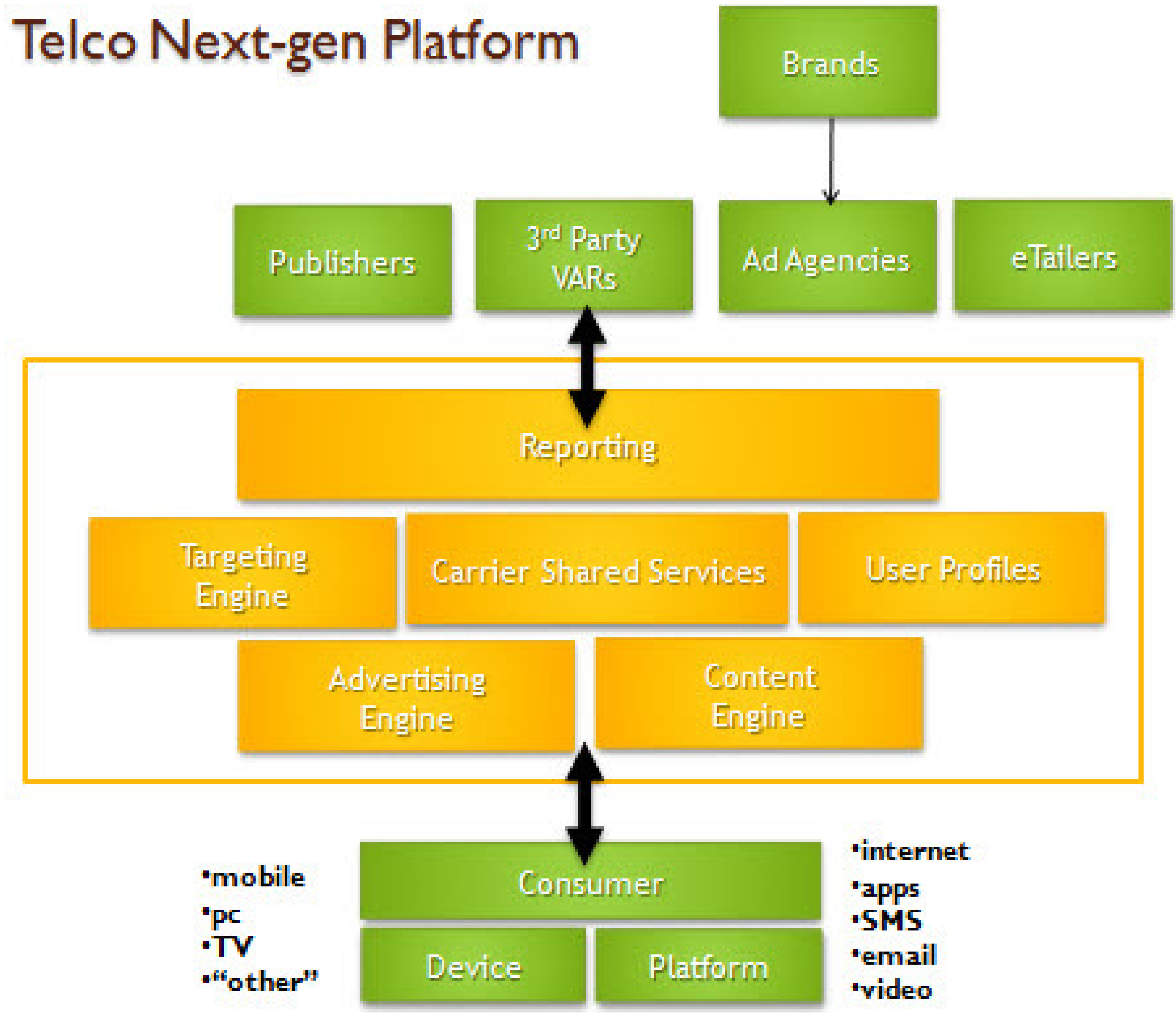
Publishers and advertisers need to define what they need, and what they would be willing to pay.

This paper has proposed that carriers can leverage their massive subscriber reach with real-time, in-session subscriber profiles, along with transactional and distribution efficiencies, to make the hyper-targeting of large audiences cost-effective and precisely measurable. This would not only add more value to e-advertising in general, it would also give publishers the opportunity to efficiently target their best "paying customer" prospects and get them to branded, higher-margin destination portals where real-time profiles could interact with in-site search tools to enhance content discovery.

Online consumers would benefit from an enhanced user experience – more convenient, more relevant, more interactive, and more economical with various discounts offered for the use of their real-time profiles. Fully opt-in and protected. Better ads, not more ads. Better content suggestions. Streamlined transactions. Anywhere, anytime, any screen content consumption. Less reason to settle for low-quality, pirated content.

None of this will happen overnight, or without controversy. All the more reason for carriers and the media industry to collaborate as strategic partners, and sooner rather than later.


Real-Time Profiles – A Big Step Forward
Search Engines
Websites
Content
Advertising
ONLINE
SESSION
Real-Time User Profile
- OPT-IN (Value Exchange)
- Preferences
- Online History
- No Direct Identifiers
- Inference and Learning Engine
- Web Interface Engine
Financial
Transaction
Services
Social Media
Opt-in, secure, intelligent agent that saves time & improves relevance


Telco Next-gen Platform
Brands
Publishers
3rd Party VARs
Ad Agencies
eTailers
Reporting
Targeting Engine
Carrier Shared Services
User Profiles
Advertising Engine
Content Engine
•mobile
•pc
•TV
•"other"
Consumer
Device
Platform
•internet
•apps
•SMS
•email
•video

Primary Sources

- *Aubry, Jonathon*: Senior Director Branded Entertainment & Partnerships, Here Media (Interviewed March 19, 2010)
- *Bachmaier, Jorge*: SVP Digital Media and Business Development, Endemol USA (Interviewed March 19, 2010)
- *Banfield, Steve*: Consultant, Digital Media & Social Networking (Interviewed March 18, 2010)
- *Barkaloff, Alex*: Executive Producer Digital Media, Lionsgate (Interviewed March 17, 2010)
- *Beck, Curtis*: Business Development and Strategic Planning, Bandito Bros (Interviewed March 17, 2010)
- *Bradbury, Steve*: Vice President, GoTV Networks (Interviewed March 17, 2010)
- *Cohen, Donna*: Vice President Products, RingWorld (Interviewed March 18, 2010)
- *Coleman, Lee*: Vice President New Business Development, MTV Networks (Interviewed March 16, 2010)
- *Geller, Ronald*: Vice President Worldwide Content Relations, Dolby (Interviewed March 19, 2010)
- *Horstmann, Jens*: VP Technology, NCR Entertainment (Interviewed March 18, 2010)
- *Jedlicka, Michael*: Vice President, Technology & Strategy, Walt Disney Studios (Interviewed March 19, 2010)
- *Johnson, Frank*: Vice President, Rovi Data Solutions (Interviewed March 18, 2010)
- *Kasper, Adam*: SVP& Managing Director Digital Innovation, Havas Digital (Interviewed April 2, 2010)
- *Napolean, Tim*: President Services, All Digital (Interviewed March 18, 2010)
- *Rajagopalan, Krishnan*: Vice President Digital Media Technologies, MPAA (Interviewed March 17, 2010)
- *Rooke, Christopher*: Senior Vice President Interactive Media, CBS Television Distribution (Interviewed March 17, 2010)
- *Schwartz, Lori*: SVP & Director of Emerging Media, IPG (Interviewed April 6, 2010)

Secondary Sources

Books:

Vogel, Harold. *Entertainment Industry Economics: A Guide for Financial Analysis, 7th Edition.* New York, NY: Cambridge University Press, 2007

Surveys & Articles

Forrester Research press release, February 8, 2010. "Association of National Advertisers / Forrester Research Survey: TV Advertising Budgets are Under Siege." Accessed April 2010, http://www.forrester.com/ER/Press/Release/0,1769,1323,00.html

Forrester Research. "Forecast: U.S. Online Retail Sales, 2009 – 2014." Accessed April 2010, http://techcrunch.com/2010/03/08/forrester-forecast-online-retail-sales-will-grow-to-250-billion-by-2014/

Forrester Research. "US Interactive Marketing Forecast, 2009 to 2014." Pages 6, 7, & 14

Local Techwire, March 24, 2010. "As Sprint prepares for video calls, wireless execs seek more bandwidth." Accessed April 2010, http://localtechwire.com/business/local_tech_wire/news/blogpost/7292027/

Fritz, Ben and Eller, Claudia. February 1, 2010. "Sony Pictures to Cut 450 Workers as DVD Sales Decline." *Los Angeles Times*. Accessed April 2010, http://latimesblogs.latimes.com/entertainmentnewsbuzz/2010/02/sony-pictures-lays-off-450-employees.html

Plunkett Research. "Wireless, Cellular & RFID Industry Trends - Introduction to the Wireless Industry." Accessed April 2010, http://www.plunkettresearch.com/Industries/WirelessCellularRFID/WirelessCellularRFIDTrends/tabid/264/Default.aspx

Steinkert – Threlkeld. June 10, 2009. "Barry Diller: The Internet 'Absolutely' Will Become a 'Paid System' - Time Projection: Within 5 Years." *ZDNET*. Accessed April 2010, http://blogs.zdnet.com/BTL/?p=19552

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