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Podcasting: A new technology in search of viable business models

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Abstract

Podcasting has become popular as it allows listeners to time–shift content, *i.e.,* to listen —
when it suits them — to radio–like programming on portable MP3 and related devices.
Dissatisfaction with traditional radio — which has too much advertising and is perceived to
have generic programming — is fueling interest in programming that better meets the
individual needs and interests of consumers. Podcasting represents a shift from mass
broadcasting to on–demand personalized media. We look at the development of podcasting
technology, the social context within which this development has occurred, and outline the
legal constraints that podcasters face. Then we examine some business models for podcasting.

Contents

Introduction

"It was revolutionary when listeners were able to take their music to the beach
or the park, but in those days they still had to listen to whatever the radio
stations were playing. Now, with podcasting, listeners can choose the
programming they want to download from the Internet and listen whenever they
want" (Nason, 2005).

The term "Podcasting" is derived from the iPod (Apple Computer's popular device for playing
compressed audio files) and "broadcasting." Podcasting allows for audio files that would have
been previously downloaded and played on a personal computer to be automatically

downloaded and listened to on portable music playing devices (such as the iPod and other MP3 players).

Much of the technological mindset behind podcasting has its origins in the world of blogging. In fact, some have referred to podcasting as "audio blogging." For many, podcasting is a logical next step from blogging. As Stephen Baker observes: "The heart of the podcasting movement is in the world of blogs, those millions of personal Web pages that have become a global sensation. In a blogosphere that has grown largely on the written word, podcasts add a soundtrack" [1].

The development of the RSS (Really Simple Syndication) file format made podcasting possible. The original intent of RSS was to automatically update blog postings, news headlines and other Internet content on local computers (Ambrogi, 2005). This meant that individuals who were interested in this content would not have to search for updates from the source sites—the software would do this for them, and provide them with any new or updated information. Software pioneer Dave Winer was later to adapt RSS software to handle audio files (Biever, 2005). This development was critical to inspiring Adam Curry, a former MTV video–jockey, to create podcasting software.

Podcasting software was developed after Curry saw the potential of RSS technology to help provide greater flexibility in finding and downloading audio files — that then could be listened to on his iPod. Curry was frustrated at the time it took to manually transfer files from his personal computer to his iPod (Biever, 2005). In August 2004, he sought ways to automatically put Internet radio and audio blogs from his computer onto his iPod (*Independent,* 2004). He was also frustrated at the time it took to search the Internet for new material that he was interested in downloading.

Initially, Curry taught himself AppleScript so as to create a program that would "identify MP3 files pointed to by RSS feeds, download them to his computer and place them in his iTunes folder so they would be delivered to his iPod for his listening convenience" (*Independent,* 2004). Curry created the first version of ipodder — a "podcatching" tool. Seeking to improve on this software, he made it available to open source programmers, who improved the program (see ipodder.com) [2]. Other versions of this software would be developed, including jpodder. Both ipodder and jpodder are available for free [3]. With podcasting technology available, audio content was now easily distributed and located. This created an explosion in the popularity of podcasting (Affleck, 2005).

The time for podcasting was ripe as sales of iPods and other MP3 players were growing. By January 2005, Apple had sold around 10 million iPods, half of which were estimated to have been sold in the 2004 holiday season (BBC News, 2005).

Also of relevance to the growth of podcasting has been the development of MP3–type devices with larger storage capacity. For example, the first iPod (introduced in October 2001) had a five GB hard drive and could store up to 1,000 songs, retailing for US$399 (Apple Computer, 2001). In contrast, today's iPods are available in a number of models (including — at the high end — a 60 GB model, capable of storing 15,000 songs, retailing for US$399). A four GB model capable of storing 1,000 songs is also available for US$199 (Apple Computer, 2005b). This illustrates that the cost of the devices has declined, and storage capacity has increased over time. The increased storage capacity of iPods and other MP3 players makes it more attractive to use these devices for purposes other than storing music — including for storing podcasts.

In the last year podcasting growth has been dramatic. This growth is obvious when we look at the number of podcasts hosted by just one source of podcasts, feedburner.com: On 1 November 2004 there were an estimated 212 podcasts on this service (*Business Week,* 2005). By 10 January 2005 this number had reached 1,090 As of late August 2005 13,782 podcasts are hosted by feedburner.com.

Consumer interest in podcasting is also growing. At present, around 22 million people in the United States own iPods or other MP3 players (Rainie and Madden, 2005). Around six million of these people have downloaded podcasts and podcasting is expected to reach 12.3 million households by 2010 (Rainie and Madden, 2005; Forrester Research, 2005).

Podcasting is expected to reach 12.3 million households by 2010.

In late June, 2005 Apple Computer added a podcasting feature to their iTunes software, making over 3,000 podcasts available for free (Apple Computer, 2005a). Apple is promoting podcasting with catch phrases such as "Radio Reborn" and "Podcasting. The next generation of radio" (Apple Computer, 2005d). In addition to allowing users to download individual podcasts or subscribe to podcasts, iTunes also allows podcasts creators to publish their podcasts. Within two days over one million subscriptions to podcasts had been made through iTunes (Apple Computer, 2005c). The inclusion of a podcasting feature by iTunes is the single greatest step in helping podcasts reach a wider audience. This is because iTunes already has a well–established user base and the credibility (and perceived creativity) of Apple Computer behind it.

Podcasting technology and its applications

At present one must have some technical understanding to create a podcast. However, as technology improves more user–friendly software is becoming available. As Byron Acohido observes, "[p]odcasters anticipate that the overall podcasting audience will continue to swell as the tools to create and subscribe to podcasts become more user friendly. For the moment, a patchwork of tools makes trial–and–error *de rigueur*" [4]. Inevitably, as podcasting software improves, so too will the quality of podcasts and the size of their audiences. The process of creating a podcast involves:

1. Create or capture and edit the content.
2. Publish content to a Web site or blog.
3. Listeners then subscribe to the content using an RSS News Reader.
4. Download the content into content management software (CMS).
5. Play content on download or synchronize CMS with portable media player and play (Meng, 2005).

The tools necessary to create podcasts are relatively inexpensive and many can be obtained, at no cost, through shareware programs. The following list describes what would be required for the most basic podcasting set–up (from Meng, 2005; Farivar, 2005):

- Audio capture tools, including a good quality microphone, audio software and a personal computer.
- Audio editing tools: key requirements are multiple track editing and multiple audio compression formats including, AIFF, WAV, ACC and MP3.
- File transfer software — basic FTP/SFTP, HTTP upload, virtual drive (WebDAV), or server upload.
- Web space (the amount of space needed is variable and will often be a part of Internet connection package).
- RSS enclosures to tag podcasting content with XML (RSS 2.0) format.
- Specialized RSS news reader to automatically download subscribed podcasts to a designated folder.
- Content management software to allow listeners to sort and organize content into "playlists."
- Digital music player.

**Ministers use podcasts
for sermons, creating so–
called "godcasts."**

Consumers are interested in podcasting for the variety and control offered. There are numerous podcasts available. Some politicians use podcasts to reach out to voters. Ministers use podcasts for sermons, creating so–called "godcasts." The Vatican is beginning to distribute podcasting from the Pope. Publications such as *Business Week, USA Today* and the *Harvard Business Review* are also providing podcasts. iPodder.org provides several other categories of podcasts, including food, games, beer, business, and automotive. It is evident with this variety that podcasting is offering consumers something radio has not been able to provide. As Heather Green (2005) observes, "[podcasting] allows people to thumb through an exploding treasure trove of shows and find exactly the right one for them, no matter how off the wall it might be. That makes podcasting very different from mass radio, which needs to play the most broadly popular songs to attract the widest audience."

Having looked at some of the technology that enabled podcasting, we will now discuss the social factors that have contributed to the rapid growth of podcasting.

Social contributions to the growth of podcasting

The growth of podcasting is being shaped by a number of social factors:

1. Podcasting allows listeners to engage in time–shifting, while providing space independence, *i.e.,* to listen to media at a time and place that is convenient.
2. Consumers view traditional radio as having too much advertising.
3. Listeners are frustrated with the homogeneous nature of traditional radio programming.
4. We are seeing a fragmentation of traditional media — from mass broadcasting to media that is tailored to individual needs, *i.e.,* to personalized media. This fragmentation is being fueled, in part, by podcasting — a technology that allows individuals to share their expertise and interests with others.

We will now discuss these social trends in more detail.

Time–shifting
The key technological advantage of podcasting is time–shifting — the ability to listen to audio material when we choose (see, generally, Duncan and Fox, 2005). This is in contrast to traditional radio, where the listener has little control over what is being provided or when they listen to programming. Hence, it is hardly surprising that Doc Searls proposes that, "[p]odcasting will shift much of our time away from an old medium where we wait for what we might want to hear to a new medium where we choose what we want to hear, when we want to hear it" (*Independent,* 2004).

As our lives get busier podcasting provides us with the opportunity to listen to a broadcast as our schedule permits (Dotto, 2005). This time–shifting capability allows consumers to take their favorite shows with them wherever they want — while commuting, exercising, or doing housework (Acohido, 2005). In this sense podcasting offers convenience to listeners. MP3 players are lightweight and are easily carried wherever listeners want to go. This is in contrast to listening to audio files on a computer or laptop — a proposition that is more cumbersome and less mobile.

In addition to providing greater flexibility in when audio programming is listened to, podcasting invariably also offers listeners an escape from the advertising that plagues traditional radio broadcasting.

Too much advertising
Many listeners believe that traditional radio has become overburdened with advertisements (Kiley, 2005). Since 1993 the average listening time for traditional radio has dropped more than three hours per person, to 20 hours a week per person (Green, *et al.,* 2005). So as to make their radio stations more attractive to listeners Clear Channel is decreasing the frequency with which commercials are played and is limiting the maximum length of advertisements to 60 seconds (Kovach, 2004) [5].

Furthermore, competition from satellite radio, computer games, MP3 players and podcasting led to a nine percent drop in average listening time since 1998 (Strauss, 2005). To some extent the growth of these competing media choices are also indicative of consumer dissatisfaction with adverting on traditional radio. Satellite radio allows listeners to avoid advertising, at least on their music stations — although users do pay a subscription fee for satellite radio services. MP3 players allow users to act as their own disk jockeys, creating and sharing play–lists that they can then listen to at their convenience. Also, when podcasts are downloaded to MP3 players this provides the ability to eliminate — or skip over — advertisements. As Kiley (2005) observes, most podcasts are advertising–free which is just the way consumers want it.

Since 1993 the average listening time for traditional radio has dropped more than three hours per person, to 20 hours a week per person.

In addition to their dissatisfaction with advertising, traditional radio listeners appear to also be concerned with the homogenous nature of programming that they are exposed to. In contrast podcasting is seen to offer more interesting, and varied, listening choices.

Homogeneous programming
One company, Clear Channel, owns around 1,200 radio stations nationwide, dominates the Top 40 format and controls 60 percent of all rock formats (Boehlert, 2001; Yang, 2004) [6]. Artists' groups claim that — by focusing on narrower, less diverse programming—industry consolidation has been harmful to radio listeners and to musicians [7]. For example, John Connolly, National President, of the American Federation of Television and Radio Artists (AFTRA) comments that:

> "As a result of the homogeneous and limited playlists that have emerged with concentrated radio station ownership, fewer artists are able to receive airplay and reach an audience. Because these same media conglomerates also own concert venues and concert promotion companies, it can't help but create a modern version of payola — radio station owners forcing artists to be represented by their promoters and perform in their venues or run the risk of being shut out of certain key markets entirely or negatively impact the artist's airtime across the country. This monopolistic structure severely impacts the ability of artists to succeed and also harms the public — we have access to less music with less diversity, and the music we hear is selected based on crass commercial promotional considerations rather than quality or performer artistry" (in Future of Music Coalition, 2003).

A recent *Business Week* article proposes that listeners are increasingly tired of homogeneous radio programming (Green, *et al.,* 2005). Podcaster Brian Ibbott proposes that, "[p]eople are lot more bored with radio than even they realize. There's no charm to it anymore. There's no uniqueness" (Green, 2005). Part of this dissatisfaction with traditional radio is an outcome of the efforts by the major media conglomerates to cut costs. For example, Richardson and Figueroa report on Clear Channel's practice of substituting traditional disk jockeys with low–cost voice–tracking technology in some markets:

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"Voice–tracking entails recording audio that can then be cut, pasted, and reassembled to simulate a live, local DJ when in fact it is prerecorded, nonlocal programming. Voice tracking has eliminated jobs for on–air talent and replaced them with board operator jobs that pay as low as $6 per hour." [8]

Another way in which creativity is stifled by media conglomerates is through the practice of creating regional or national play-lists, thereby taking away the historic prerogative of disk jockeys to choose music for listeners. In contrast, it appears that podcasting provides listeners with a sense of discovery that has gradually been lost with the commercialization of traditional radio. As Fisher observes:

"[podcasts] can be painfully amateurish or delightfully quirky. They are a natural descendant of the mix tapes that music lovers made and traded in the early years of the cassette era in the 1970s." [9]

Partly as a response to consumer frustration with homogeneous programming, new technologies have allowed media fragmentation to occur.

Media fragmentation/narrowcasting
Technology increasingly gives us greater control over the programming that we consume. As a consequence media consumption is becoming increasingly fragmented. Podcasting and the use of devices such as MP3 players allows consumers to "create their own media environments — unique to each listener and unavailable to anyone else" (Nason, 2005). From the point of view of listeners, media fragmentation provides more choices, a greater feeling of control over their listening, and a greater sense of community and engagement with media providers and with others.

Media fragmentation is being fueled by the practice of individuals creating their own content and then sharing it with others. Podcasting also offers individuals control because they have the ability to create their own podcasts. Podcasting offers the means for anyone who wishes to have their own "show" the opportunity to do so (Affleck, 2005). These podcasts are relatively inexpensive and simple to create. As Lee Rainie, director of Pew Internet & American Life Project, observes: "It turns out that there are significant and growing numbers of people that want to hear their own voice and think that other people want to hear their voice. That's why the number of podcasts is growing, and the options to people have to download them is growing" (Kerner, 2005).

From the point of view of traditional broadcasters media fragmentation offers some very real challenges. For instance, in recent years, even as traditional radio has attempted to better target consumers they have faced increased competition from media that allow consumers even greater ability to personalize listening choices. These new media are likely to be detrimental to traditional radio. For example, David Ranii proposes that: "satellite radio and other competitors will do to radio what cable TV did to network TV; fragment its audience and reduce its share" [10]. On the other hand, the development of highly focused listening environments — which are driven by listeners own choices — offer opportunities for marketers to better target consumers who may be interested in their products. It appears that those consumers who gravitate toward what has been termed an "on–demand media environment" may be particularly lucrative to marketers. In this regard Arbitron/Edison Media Research have found that, "[t]eens, young adults and persons with an annual income of $100,000 or more seem to gravitate on–demand media behaviors and attitudes" [11].

As we have just seen, a myriad of social forces have played a role in contributing to the rapid growth of podcasting. However, as we shall now discuss, this growth has to take place within the constraints provided by the law.

Legal constraints

While podcasting is experiencing significant growth, further development is somewhat hampered by an uncertain legal environment — particularly with regard to copyright issues

[12]. This is leading many podcasters who use music as part of their podcasts to use songs that are in the public domain. On a positive note (at least for podcasters), they are not subject to the same FCC regulation as traditional broadcasters.

Avoiding Federal Communications Commission (FCC) regulation
Podcasting communications are unregulated by the FCC. In an era when the FCC is being proactive about, for example, fining broadcasters when profanity is used, "[t]he borderless Internet ... allows people to enjoy freedom of speech without fearing retribution" [13]. Hence, it is not unusual to find podcasting content, such as *The Dawn and Drew Show,* that "go where even shock jock Howard Stern can't go" [14].

For those podcasters who fear that their content may offend (or be inappropriate for some listeners), one way that they can mitigate against inadvertently offending listeners is through disclaimers. For example, before being able to access the site further, the Dawn and Drew Web site requires that visitors click on a link saying that they agree to the following:

> "By entering The Dawn and Drew Show! website and listening to any of our shows, in full or in part, you hereby acknowledge that it's just a conversation between a husband and wife. It's mostly funny stuff, but at times may be offensive, and if you get offended, you need to either lighten up or stop listening. Some of the things we say are nasty and raunchy, and some of it may not even be true. Most important though is that the things we say in no way reflect opinions of our family, friends or employers. This is our personal website and that's that. Entering the site also means that you're at least 18 years old.
>
> So with that being said, and you still wish to continue and have a good laugh, click the link below and enjoy ..." (*Dawn and Drew Show,* 2005).

Podcasting and the workplace
Podcasting, like blogging, can impact the workplace. As noted by Littler Mendelson, the largest employment law firm in the U.S., "[employees] mistakenly believe if they shroud the blog or podcast with anonymity, they are immune from the consequences" (*Fresh News,* 2005). However, in most states employment is "at–will," *i.e.,* employers can fire an employee without cause. Both Google and Delta Airlines have reportedly fired employees for comments made in blogs (Crawford, 2005). One way that employers can help minimize the likelihood of employees misusing podcasts — or misusing company resources to create podcasts — is to incorporate podcasting into company policies regarding confidential information, trade secrets, and the use of company electronic resources [15].

Copyright laws
For those podcasters that rely on copyrighted material (typically music), the legal issues are complex and are still evolving. Contributing to this confusion is the fact that:

> "... copyright law hasn't caught up to technology. While the music industry has created an efficient licensing system for music–streaming on the Web, which doesn't entail making copies, it hasn't cobbled together one for podcast–style music downloads" (Yang and Helm, 2005).

Even if one is to comply with the copyright regimes in place the costs — both financially and in terms of reporting/filing requirements — are likely to be burdensome. We will now discuss three copyright licenses that appear to be relevant to podcasting.

Public performance rights
In the U.S. three major performance rights organizations collect royalties for songwriters, composers and music publishers. These performance rights organizations have adopted licensing agreements for podcasting:

- American Society of Composers, Authors and Publishers (ASCAP): http://www.ascap.com/weblicense/
- Broadcast Music, Inc. (BMI): http://www.bmi.com/licensing/podcasting/index.asp
- SESAC: http://www.sesac.com/licensing/print_license2.html

Because each of the above performance rights organizations represents different songwriters and publishers, licenses may be required from more than one of these organizations [16].

Mechanical royalties
Mechanical rights license grant holders "the rights to reproduce and distribute copyrighted musical compositions (songs)" (Harry Fox Agency, "What is a Mechanical License?"). In the U.S. these rights are primarily handled by the Harry Fox Agency, which recently proposed:

> "Since users download podcasts, it seems that music distributed through this platform — assuming it is not altered (*e.g.,* fragmented or interspersed with other audio content), accompanied by visual content, or used for commercial purposes — would appropriately be licensed as DPDs [Digital Permanent Downloads]." [17]

To help explain what constitutes a Digital Permanent Download, elsewhere on their Web site the Harry Fox Agency state that:

> "A full, permanent download (DPD) is each individual delivery of a phonorecord by digital transmission of a sound recording (embodying a musical composition) resulting in a reproduction made by or for the recipient. DPDs reside on a recipient's computer indefinitely. DPDs may be transferred to portable devices or burned onto CDs (in accordance with the rules set by the digital distributor of a specific DPD). DPDs fall under Section 115 of the Copyright Act and are currently licensed at the statutory rate for physical phonorecords." [18]

While mechanical licenses apply to the underlying musical composition — the "original words and arrangement of the music" [19] — master use licenses apply to a specific recording of a work.

Master use licenses and copyright confusion
The greatest stumbling block to the growth of podcasting appears to be what are known as master use licenses. Master use licenses arise as "the owner of copyright in a sound recording has an exclusive right to control copying of the sound recording" [20].

The problem is that, while current copyright law allows for streaming music online, or live Internet radio, it did not foresee that radio–like programming could be downloaded to MP3 players; thereby creating the potential for multiple copies to be made (Quain, 2005). The Recording Industry Association of America, representing major record labels, commented that, "[p]odcasters, like the users of any other sound recordings, must obtain the appropriate licenses from the copyright owners, or their designees" [21]. However, as there is no mechanism (or intermediary) in place to obtain these licenses, it can be frustrating and time–consuming for podcasters to attempt to obtain such licenses on a one–by–one basis (Yang and Helm, 2005).

It appears that record labels fear that licensing podcasts could undermine the value of their intellectual property rights ...
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It appears that record labels fear that licensing podcasts could undermine the value of their intellectual property rights, *i.e.,* it could undermine the revenues that could be gained from selling music in physical form (primarily CDs), or in virtual form (as, say, individual song downloads on services such as iTunes). Hence, Borland (2005) comments that "Podcast songs are bundled into a single undifferentiated audio file, but labels fear they can nevertheless be extracted and freely saved as permanent copies of songs similar to those purchased from iTunes."

Alternatives to mainstream copyright (i.e., avoiding copyright issues)
Copyright issues may be avoided by podcasters who make use of non–copyrighted material, or obtain permission to distribute such materials without compensation [22]. If podcasters wish to use music in their podcasts, but are unable (or unwilling) to pay royalties for doing so, then they can freely make use of music that is in the public domain (http://www.pdinfo.com). The

term "podsafe" refers to music that can legally be used in podcasts without concern for paying royalties. Increasingly such music uses licenses from Creative Commons (creativecommons.org) [23]. The downside of using such music is that it tends to limit podcasters to older, less commercial, and/or alternative music programming (although, for many, these characteristics would be seen as just the antidote to generic radio programming).

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Toward viable business models for podcasting

Podcasting is a low–cost method of transferring audio information. The costs of creating and distributing podcasts are significantly lower than the costs associated with traditional radio. This has led Green, *et al.* to suggest that:

> "... a trend is afoot that could transform the $21 billion radio industry. Consider the basics: With no licenses, no frequencies, and no towers, ordinary people are busy creating audio programming for thousands of others. They're bypassing an entire industry." [24]

The economics of podcasting have led to the development of nanoncasting. Rather than view podcasting as a hobby or public service, nanocasters seek to provide podcasts that make a profit.

> "Nanocasting aims to deliver programming profitably to very small but highly interested audiences. Using radio effectively in nano markets requires very different strategies and opens the door to programming that would have been unthinkable and unsustainable under the broadcast model" (International Nanocasting Alliance, 2005).

Nanocasting has some philosophical foundation in current marketing trends — where we are seeing a move away from mass marketing to individual (one–to–one) marketing. However, it is a mistake to assume that because many consumers are using a new technology that there is money to be made. Dave Winer echoes this word of caution when he observes that: "The assumption is [that podcasting] must be exactly like every other medium that has come before. It's different. It has different economics ... Why invent something new if it has to be like everything else that came before?" [25]

Clearly, the Internet boom (and subsequent crash) show the problems of focusing on technology and hype, while ignoring business fundamentals [26]. For those interested in co–opting podcasting for commercial ends, two related questions need to be answered: First, is there money to be made from podcasting? And, if so, what business models are viable in pursuing this end? Cameron Reilly, a co–founder of the Podcast Network, proposes that:

> "We don't see podcasting as 'revolution,' but simply as an 'evolution.' Podcasting is a viable commercial medium because it has the same characteristics of more traditional mediums such as radio but with the added benefits of time–shifting, portability, user control, and global coverage" (in Claburn, 2005).

Now, we will discuss some of the business models that may be adopted for podcasting [27]. Needless to say that the adoption of any of these models will largely be dependent upon the size of a podcaster's audience, the demographics of that audience, the perceived value of the podcast to audience, and the willingness of listeners to directly (*e.g.,* through electronic tips) or indirectly pay for podcasts (through, for example, listening to advertising).

Sponsorships
For popular podcasts, sponsorships makes good business sense — assuming that the sponsor provides a good fit with the podcast. Hence, it seems logical that we see Volvo sponsoring a podcast at Autoblog.com (http://autoblog.com/) and Gatorade sponsoring Enduranceradio.com (http://enduranceradio.com/). Sponsorships have a long history in traditional radio. Steve Rubel (2004) suggests that they have the potential for generating revenue for podcasters:

> "[Sponsorships are] a throwback to the Golden Age of Radio when a single company would sponsor an entire hour of variety programming. Such sponsorships might closely resemble TV product placements where the ads become part of the content in some meaningful way. For example, it's possible a podcast sponsor might be able to embed a full audio news release right into a program, provided it is consistent with the show's content."

Sponsorships tend to be less intrusive than advertising. This makes sponsorships of podcasts more acceptable to listeners. Well–matched sponsorships can appear to be quirky, fun, or subversive to listeners. For example, Durex has sponsored the *Dawn and Drew Show.* The sponsorship was reported to increase Web traffic to www.durex.com threefold after the company decided to sponsor the show (Restivo, 2005). While this is impressive, companies that sponsor podcasts will no doubt be looking to see benefits in terms of increased sales and profits.

Advertising
The term "podvertising" has been created to refer to advertising that is part of content that is then downloaded to portable MP3 players. In the United Kingdom, Virgin Radio was one of the first stations to use podvertising. Virgin Radio created a podcast version of the popular Pete and Geoff Show:

> "Virgin Radio has become the first commercial radio station to create a 'podcast,' making highlights from the Pete & Geoff breakfast show, along with advertising, available on portable music players such as Apple's iPod.

> The service will be free, thanks to the advertising, with a deal negotiated by OPera. COI [Central Office of Information] Communications, with its Home Office police specials campaign, and online travel agent Expedia are the first two 'podcast' advertisers" (Whitehead, 2005).

Advertising has long been the major source of revenues for traditional broadcasters. Fox and Wrenn in talking about the application of the broadcasting model to the music industry observe that:

> "the [broadcasting] model starts with the premise that the real value derives from the audience that consumes the music, rather than from the product itself. Put another way, the audience is the product that is delivered to marketers." [28]

This same principal applies to podvertising — the listeners are the product being delivered to advertisers.

There is, however, some disagreement about the role of advertising in podcasting. Griffith Jones, a former media and entertainment consultant at IBM notes:

> "For radio, people are used to advertising, but when it comes to podcasting and they have to go through the trouble of downloading it and uploading it into their mobile device, I tend to think people will be less tolerant." [29]

Benjamen Walker, an independent radio producer, does not see a problem with advertising and podcasts, but admits that the audience size does not yet support the idea, "I would love to have a sponsor, and put one 30–second ad at the top of the show. That wouldn't bother me at all. But I just don't see it, until the numbers get higher." [30]

While there are clear openings for the use of advertising with podcasts, advertisers need to consider whether this is worthwhile. At present, Podcasting audiences are still small relative to the traditional broadcasting formats; however, this premise does not deter many podcasting advocates who propose that "that so–called narrowcasting isn't necessarily a bad thing" (Acohido, 2005). Furthermore, "[t]he beauty of podcasting is that you target your messages specifically to the people you want to reach, and the people who want to hear what you have to say actively seek out information." [31] This narrow focus could potentially result in better marketing outcomes for each advertising dollar spent.

Consumers are more likely to respond positively to advertising when "is personalized and delivered in an environment that is a central part of their lifestyle." [32] Podcasts, by their very nature, are more likely to meet the interests and lifestyles of consumers. In the context of radio in general, it has been found that listeners trust stations to bring them relevant content, including advertising (Radio Ad Effectiveness Lab, 2004). When advertising does not fit with listener needs or expectations, listeners are likely to be disappointed or angry (Radio Ad Effectiveness Lab, 2004). However, radio advertising is thought to benefit from the personalized connection people feel with radio — at least compared to may other forms of media:

> "Radio ads, like the programming that contains them, are seen as 'speaking to me,' and radio advertisers are associated with 'trying harder to reach me personally.' That translates into an open door to a listener's emotions, which we know to be key to advertising effectiveness ... Radio ads need to speak to individuals, not to the general population. And they need to be compatible with their surroundings; effective radio ads must be just as targeted as the programs which contain them." [33]

From the point of view of marketers, the problem with advertising in podcasts is that listeners can skip over advertisements. Also, if — as we have proposed earlier — podcasting is partly a response to listener frustrations with too much advertising on traditional radio, then podcasters who adopt advertising may lose listeners who view historically hobbyist podcasters as going "mainstream" rather than being an alternative to traditional radio programming.

Listener donations
A number of listener donation schemes have been proposed, including pledgecasts (where podcast subscribers pledge to give donations) and electronic tip jars. Tip jars allow podcast listeners to donate money to podcasters, if they so wish. Tip jars are often operated by a service such as PayPal, that allows credit card payments or funds to be deducted from a PayPal account [34].

The advantage of the listener donation model is that people can give according to their level of appreciation for the service provided, or according to their means. The downside is the free–rider problem — many listeners are likely to not give at all, hoping that the service continues to be supported by others.

Cooption
Under the cooption model existing broadcasters (including traditional radio and television) make podcasts of their programming available. Often the motive behind the cooption strategy is to promote and market their terrestrial station to iPod and other MP3 device users. Acknowledging this perceived benefit, John Marino, a spokesman for the U.S. National Association of Broadcasters, states that: "[Podcasting] technology is not a threat to us, but rather a way to attract more listeners by providing new ways to access programmes" [35]. The *Washington Times* illustrates this point in a recent article:

> "Los Angeles station KCRW recently began podcasting its news and public affairs programs. The station's Web master, Jason Georges, told United Press International that, for now at least, podcasting is a relatively cost–free proposition. 'The money involved in producing the podcasts is no more than the money we spend on our existing online budget for bandwidth and staffing ... If it grows exponentially, then we'll have to look at buying more bandwidth" (Nason, 2005).

The cooption model has already been adopted (or is being experimented with) by National Public Radio, the British Broadcasting Corporation, Canadian Broadcasting Corporation, and ABC. As mentioned earlier print media, including *Business Week, Harvard Business Review* and *USA Today,* are also experimenting with podcasting.

The advantage of the cooption model is that it leverages existing brand awareness (including the reputation of hosts) and makes programming available at times when it is convenient for listeners to hear.

We speculate that under the cooption model it is probably more acceptable to listeners for advertising or sponsorship associated with podcasts. This is because listeners may be primarily motivated by a desire to hear programming at times when they cannot hear it broadcast, and their motivation in listening to podcasts is not tied so greatly to a desire for radically different programming — or avoiding advertising.

(Paid) subscription models, for aggregators
The development of Apple Computer making podcasts freely available leaves open the possibility that iTunes users will eventually be charged for some or all of these podcasts. Other podcast aggregators could also potentially create a subscription model. To illustrate how such a pricing model could work, consider the case of Apple: Apple could charge a flat fee enabling iTunes listeners to subscribe to an limited (or unlimited) number of podcasts. Revenue from this could be split between Apple and then proportionately between podcasters, depending upon their relative popularity (as measured by, say, the number of subscriptions per podcast).

Alternatively, fees could be charged for subscribing to individual podcasts. The pricing of podcasts could be done on a dynamic basis with, for example, more popular podcasts being more expensive to subscribe to. However, given that Apple currently operates with a mind–set of a single 99 cent fee for individual songs, it seems unlikely that they would adopt a dynamic model for pricing podcasts.

Radio programs that already have a significant audience and reputation will most be able to leverage podcasting to their benefit.

In addition to subscription models at the aggregator level, a paid subscription model may be pursued by some individual podcasters.

(Paid) subscription models for individual podcasters
Radio programs that already have a significant audience and reputation will most be able to leverage podcasting to their benefit. For example, the most listened to radio host in the United States, Rush Limbaugh, has adopted the podcast format by making his daily show available as a podcast that is free of advertising. Though access to the Limbaugh podcasts are limited to paid subscribers to *Rush 24/7,* it is anticipated that the convenience of time–shifting will lead to further subscriptions. As Brian Glicklich, of Premiere Radio Networks, comments:

> "The business of over air broadcast radio is rapidly changing, with consumers demanding DVR–like functionality for radio. We chose podcasting as one of our top priorities for 2005, and we are confident it will successfully drive new subscriptions and revenue, making us even more competitive with Internet and satellite services." [36]

Infomercials
Dave Winer, a pivotal figure in the creation of software for podcasting, hopes that podcasts will be used as informational tools — for example, by companies such as Best Buy to inform consumers about electronic products (Kirsner, 2005). There is a significant advantage to this form of advertising because it provides something extra to those consumers who are interested in the product and who desire additional information (Kiley, 2005). In this vein, General Motors has adopted podcasting to promote several of their product lines. Heineken and Unilever (for Axe Body Spray) also make podcasts available on their Web sites. Music and movies are also increasingly being promoted with podcasts as part of the promotional mix.

The star maker machinery
At its best traditional radio is built on the power of personalities and the loyalty, trust, and excitement that these personalities engender. Historically, on–air talent has been honed through paying one's dues at different levels that act as a filtering system. These levels may

include — or involve a combination of — experience in different geographical settings, experience in different timeslots, and experience in different in formats:

- Geographic — from small town radio station to small city to larger city to major city.
- Timeslot — from midnight–to–dawn to late night to afternoons to mornings to PM drive, to AM drive.
- Format — from, say, journalist to talkback host, or from music programmer to on–air performer.

Podcasting could act as another filtering mechanism of sorts with success in this mechanism allowing for talent to emerge and be measured — though, for example, subscription numbers and demographics of listeners. Then, successful podcasters may be given contracts by traditional radio stations, or by other media outlets that wish to build upon the success and reputation that the podcaster has developed.

Discussion and conclusion

Technology and the growth of podcasting
Given consumer interest in personalized media we are likely to see podcasting gain further public acceptance. This growth will be fueled by the convergence and enhanced capabilities of devices such as cell phones, personal digital assistants (PDAs), and MP3 players. If consumers crave convenience, then having multiple devices for different purposes does not meet this need. As Ted Schadler, Vice President of Forrester Research, observes, "[c]onsumers want to listen to what they want, when they want, on the device of their choosing" (*Podcasting News,* 2005). Given this, it is not surprising that we are starting to see cell phones take on the role of MP3 players. Software has been developed to allow downloading of podcasts to cell phones via the wireless network (Sanders, 2005). Efforts are also being made to enable the creation of podcasts on cell phones (Sanders, 2005).

Traditional radio and podcasting
Traditional radio is responding to the assault from podcasting. The industry is launching a US$28 million dollar campaign that claims it is "the primary source for news, music, and compelling audio entertainment" (*Podcasting News,* 2004). In addition, radio is exploring high–definition radio, which will provide CD–quality sound, an edge over the competition. By 2010, 2,500 stations are expected to have this capability. Over the next few years HD technology will provide the ability to store music and news, as well as offer on–demand content, allowing it to compete with the podcasting market (Green, *et al.,* 2005).

Other radio stations are taking a slightly different approach. Realizing the growing importance of podcasts, they are starting their own. For example, Infinity Broadcasting Corporation converted an underperforming station in San Francisco to an all–podcast network (Sutel, 2005). This station will provide screened material submitted by its listeners (Sutel, 2005).

Inasmuch as traditional radio provides immediacy and the possibility for interaction it does offer several unique benefits over podcasting. We do not believe that the radio industry is in any great danger of losing significant market share to podcasting, but we do believe that radio stations should start podcasting at least some of their most popular programming. We believe that by doing this they will gain (or add to) customer loyalty and be able to better market to their audience, thereby increasing revenue.

Podcasting appears to be a complement to traditional forms of media, including radio. Ted Schadler, of Forrester Research, claims: "If radio and music executives can successfully shift their thinking to embrace new audio–delivery methods, both industries will benefit from new revenue streams and increased customer loyalty over the next several years" (*Internet Week,* 2005). For now, consumers have shown that, despite their frustrations with traditional radio, they will continue to listen. However, it will become imperative for satellite and traditional radio alike to implement new models and experiment with emerging technologies. Just as podcasting poses a risk to the radio industry, it also promises many opportunities.

Independent podcasters
Given the ease with which podcasts can be created, the only true barrier to entry — or at least a barrier to generating a sizable listener base — is product differentiation. Given the ease with which podcasts can be subscribed to and discarded, consumers are only going to tolerate podcasts that appeal to them. This creates a challenge for new podcastsers — how to differentiate their podcast from the thousands of others already on the Internet. Clearly focusing upon a niche area in which one has significant expertise is one means of doing this. However, as with traditional radio, insightfulness, entertainment, and creativity will be necessary to create audience interest and a listener base of any significant size. ■

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Notes

1. Baker, 2005, p. 116.

2. Wikipedia (2005) defines open source software as "software [that] has freely available source code, which lets anybody create a new version of the software. Such access to the source code allows anybody to build a package of the software and sell it [or provide it free of charge]."

3. Podcasting software is offered either free of charge, or at a relatively low cost. iPodder, iPodderX Lite, and PlayPod are free. PoddumFeeder costs US$5, while iPodderX costs US$20 (Affleck, 2005).

4. Acohido, 2005, p. 1B.

5. Clear Channel said that it would not air commercial breaks longer than four minutes, with a maximum of six commercials per break. Before the adoption of this policy, Clear Channel

stations averaged three to eight breaks per hour, with no regulated policy regarding the length of commercials (Kovach, 2004).

6. In fairness to Clear Channel we should note that they dispute allegations that they engage in abuses of market power. Clear Channel also disputes assertions that they hold significant market power (see Clear Channel, 2004).

7. Consolidation took place in the radio industry following the Telecommunications Act of 1986, allowing media companies to own more stations (see Drushel, 1997).

8. Richardson and Figueroa, 2004, p. 88.

9. Fisher, 2005, p. N09.

10. Ranii, 2005, p. A1.

11. Arbitron/Edison Media Research, 2005, p. 29.

12. For a more a more comprehensive examination of legal issues associated with podcasting, see Fox and Ciro (forthcoming).

13. Waterstone quoted in Murphy, 2005.

14. Evangelista, 2005, p. E1.

15. A sample Electronic Equipment and Internet Access Policy is provided in Fox, *et al.,* 2003.

16. Some arguments have been made that podcasting does not involve public performance of a musical work — but merely the transfer of bits over the Internet, and therefore public performance rights should be challenged (see Cross, 2005; Phillips and Moore, 2001).

17. Harry Fox Agency, 2005, p. 3.

18. Harry Fox Agency, "Definitions," 2005.

19. Rose, 2002, p. 321.

20. Phillips and Moore, 2001, p. 173.

21. Recording Industry Association of America quoted in Caslon Analytics, 2005.

22. When podcasters conduct interviews or discussions with guests then — to avoid copyright issues — written permission (a release) should be obtained to use this content in a podcast. Collegiate Broadcasters (2005) observe that: "If a broadcast station conducts a live interview on–air or a podcaster records an interview or discussion group for posting as a podcast, the station or podcaster should make sure to receive permission from the guest to convert the interview to a podcast. Conducting an on–air or in–person interview does not necessarily give permission to convert the interview to a podcast. A release is a short legal document that waives a person's right of privacy (the right to be left alone) or right of publicity (the right to control how one's image, voice or persona is used to sell things). Failure to obtain a person's permission or a release to podcast an interview could be a violation of his or her publicity and performance rights."

23. For sources of "podsafe" music see PodSafeAudio (http://www.podsafeaudio.com, CommonContent (http://commoncontent.org) or CommonTunes (http://www.commontunes.org). For a discussion of Creative Commons licenses see Fox, *et al.,* 2005.

24. Green, *et al.,* 2005, p. 32.

25. Winer quoted in Kirsner, 2005, p. 5.

26. Readers interested in reading more about business models for e–commerce should see: Daniel, *et al.* (2004); De, *et al.* (2001); Dhillon, *et al.* (2001); and, Fairchild, *et al.* (2004).

27. Readers who are interested in reading more about business models for podcasting should see Kaye (2004); Knowledge@Wharton (2005); Rubel (2004); and, Searls (2005).

28. Fox and Wrenn, 2001, p. 114.

29. Jones quoted in Logan, 2005, p. 1.

30. Kirsner, 2005, p. 5.

31. Maruggi, 2005, p. 21.

32. Fries, 2004, p. 10.

33. Radio Ad Effectiveness Lab, 2004, p. 19.

34. For an example of a tip jar see "G'Day World" at http://www.thepodcastnetwork.com/gday_world. For guidelines on how to set up a tip jar, see Coggins (2005).

35. Marino quoted in Biever, 2005, p. 24.

36. Glicklich in Maven Networks, 2005.

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