The Decline of Legacy Media

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Introduction

Until fairly recently, media outlets were: radio stations on AM and FM bands, a few major broadcast TV networks, a few major newspapers in metropolitan areas (fewer in rural areas), and movie theaters playing films produced by a handful of studios. These outlets controlled much of what we saw, read and heard. Barriers to entry for new media were immense. In the case of broadcast media, which is the focus of this paper, the outlets were enabled by government regulation through radio and TV spectrum allocation via broadcast license. To be a broadcaster, you must acquire a license to broadcast. These licenses are limited in number in a broadcast area. Thus, if all the licenses are taken, one cannot broadcast. Moreover, producing and distributing media required significant capital due to very high quality equipment, talent (e.g., writers and actors), and distribution costs. Thus, radio and TV stations had a stronghold on media. We refer to these media outlets as *legacy media.*

Legacy media had significant control over the content provided to consumers. Unless one was part of the legacy media, it was virtually impossible to reach an audience. Nearly all media were channeled through media owners; their interests, tastes, likes and dislikes controlled what was distributed. Entrepreneurs in media were severely limited in what they could produce and distribute, as they would almost always have to strike deals with legacy media.

The world of legacy media is in decline. Consider the following: Among millennials, *PewDePie* and *Smosh*, both YouTube “stars,” are more popular than any television or movie star.[1] Jenna Marbles, another very popular YouTube star, has estimated earnings over $4.5 million per year, with over 15 million unique subscribers. She, like other YouTubers do all their own writing, shooting, editing, and production. *FaZe*, a group that specializes in YouTube videos about computer gaming, has over 3.5 million subscribers. The audience size is staggering, comparable to some primetime television shows, and this for a relatively small market (video gamers). [2]

The breakdown in division between creator and consumer is a critically important development, both technologically and culturally, in the decline of legacy media. Easy access to distribution via the Internet and production with smartphones and laptops allows anyone to create and publish as modern computing technology has substantially lowered cost to create a “studio.” This allows anyone with something creative, insightful, or challenging to say to publish. Publishing in this new world, unlike legacy media, means worldwide distribution. Some of these new voices have nothing interesting to add to the (international) conversation, but many do. Particularly because the line between consumer and producer is all but erased, content is likely to become more relevant, less filtered, and possibly of more importance than what legacy media can provide.

Television

The end of legacy media is enabled by massively disruptive technology changes in the Internet, computing hardware, and software. The Internet has revolutionized nearly every aspect of modern life. Distance has shrunk; time is malleable; information is everywhere; old industries and seemingly permanent corporations and organizations have disappeared; and, culture is

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[1] *Variety* Web site, “Survey: YouTube Stars More Popular Than Mainstream Celebs Among U.S. Teens,” August 5, 2014, http://variety.com/2014/digital/news/survey-youtube-stars-more-popular-than-mainstream-celebs-among-u-s-teens-1201275245 (accessed October 25, 2015).
[2] *Hollywood Reporter* Web site, “TV Ratings,” http://www.hollywoodreporter.com/topic/tv-ratings (accessed October 25, 2015).

changing rapidly. The technology enabling this revolution is itself revolutionary: The hardware, software, and networks that we use today would have been nearly unrecognizable as little as five years ago.

The Internet provides new means for distributing content that has completely disrupted legacy media. By controlling distribution channels, particularly the airwaves, legacy media effectively controlled content. The TV networks controlled what was shown and when; movie studios controlled which movies were produced and when they were released.

Legacy media no longer has the power it once did. The Internet provides distribution channels that are cheap, high-quality, and—most importantly—perfect for modern life. For example, Netflix, Amazon, and Hulu, provide movies and TV shows on demand to many different platforms. No longer do consumers have to watch shows when networks decide they should be watched. No longer do consumers have to wait for weekly episodes that rollout over months. No longer do consumers have to waste nearly 25% of their viewing time watching ads.[3] Content is available anywhere there is Internet and a digital platform (e.g., computers, TVs, smartphones, iPads). In fact, adults now consume more content on digital platforms than on TV.[4] Digital platforms are the key to disrupting distribution channels, which is itself key to distributing production. Historically, TVs get content from one of two sources: over-the-air broadcast TV stations or cable/satellite providers. Both of these sources are (mostly) under control of legacy media. Digital platforms, on the other hand, get content from the Internet,

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[3] TV Week Web site, http://www.tvweek.com/tvbizwire/2014/05/how-many-minutes-of-commercial/ (accessed November 30, 2015).

[4] Determined by a chart/table from Marketing Charts Web site, "US Adults' Daily Major Media Consumption Estimates, 2011-2015," (n.d.) http://www.marketingcharts.com/traditional/us-adults-daily-major-media-consumption-estimates-2011-2015-53783/attachment/emarketer-daily-major-media-consumption-2011-2015-apr2015/ (accessed November 30, 2015).

which has a far greater variety of content providers, and, most significantly, no legacy media control.

As time goes on, the shift to digital platforms will be greater and greater. “Cord cutting”—consumers dropping cable TV or satellite—has become a significant problem for legacy media.[5] Consumers are shifting their viewing to digital platforms in such numbers that investors are getting concerned about such legacy media stalwarts as Disney’s ESPN. While much of cord cutting is due to a desire to cut subscriber fees, the availability of high-quality programming through channels such as Netflix, Amazon, and Hulu is certainly a major contributor. Even HBO, another stalwart of legacy, is available via the Internet without a cable subscription.

Major sports networks, such as the Major League Baseball, the National Basketball Association, and the National Hockey League, provide complete coverage of games, subject to local blackouts. That means most major league sports—a big driver for TV and cable viewership—are available over the Internet. Perhaps the last vestige of legacy media control—local blackout—intended to keep viewership for local broadcasters is on its way out. The FCC has publicly stated that it does not support local blackouts.[6] As cord cutters grow in number, thereby reducing the number of TV viewers, sports franchises will become increasingly less likely to strike exclusive deals with legacy media for fear of losing fans. Compounding this is that millennials are not watching TV as much as previous generations.[7] If sports franchises, as

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[5] Wall Street Journal Web site, “Cord-Cutting Weighs on Pay TV,” http://www.wsj.com/articles/cord-cutters-weights-on-pay-tv-1438820384 (accessed November 30, 2015).

[6] Federal Communication Commission Web site, “Sports Blackouts,” https://www.fcc.gov/guides/sports-blackouts (accessed November 12, 2015).

[7] Forbes Web site, “The Millennial Trends are Killing Cable,” http://www.forbes.com/sites/markhughes/2015/03/21/the-millennial-trends-that-are-killing-cable/ (accessed November 12, 2015).

well as other media producers, want to capture young demographic groups, they will have to move to digital platforms away from legacy media.

It only gets worse, however, for legacy media in the TV domain. With 4G/LTE cellular data networks and increasingly ubiquitous WiFi, the Internet is available just about everywhere in the country. While there are areas of the country that lack 4G/LTE or WiFi access, they are few and far between. Because we can access high-speed data networks nearly everywhere, we are able to access content on the road, in the car, in airplanes, in trains, in stores, and the list continues.

Remember keeping the kids happy on long drives with a screen that folded down from the roof of the minivan? Remember fighting about what movie to watch? Ancient history: Now kids have iPads and can watch what they want over mobile Internet.

For those whose media platform is digital, the ability to access content anywhere at any time is a compelling reason to move away from legacy media providers. Interestingly, Dish Network, which has seen a steep decline in subscribers is changing itself into a new media provider. The Dish set-top box, the Hopper, records video like every other DVR. It, however, has built in SlingBox.[8] This technology can stream live TV or any program on the DVR. In other words, it allows a viewer to watch his or her TV on a digital platform. So, for example, if one is traveling on a plane equipped with WiFi (increasingly common), one can binge on recorded shows from one's DVR. Dish Network is trying to conform with modern viewing habits. The ability of the Hopper to allow viewers to "place shift" (away from the living room TV) as well as time shift are the defining characteristics of new media. The capability of time and place shifting

[8] MyDish Web site, "Dish has the Best Technology," https://www.mydish.com/redirects/promotion/hopper-features (accessed November 12, 2015).

stand in stark contrast to legacy media that has a broadcast schedule determining when and where (usually the home) its media can be viewed.

It is too early to tell whether Dish Network will be successful or not. They have a plausible strategy for bridging the gap between new and legacy media. Satellite TV, like cable TV with TiVO, has “broad pipes,” which means that it can deliver enormous amounts of content to consumers in a way that purely digital platforms cannot hope to match for the foreseeable future. These broad pipes give Dish Network subscribers access to a variety of content. Dish Network is still constrained, however, by legacy media to provide its content, even as it moves to being a new media distribution channel.

Radio

Perhaps the legacy media that has seen the most changes is radio. At one time, radio was *the* technology. Innovation occurred at a rapid pace, and the number of listeners grew quickly. The introduction of FM spurred additional innovation and grew the number of listeners. The quality improvement of FM over AM, especially for music, was profound and caused AM to become less and less popular. There were even the types of technology wars we see today between Apple and Google, albeit on a smaller scale. Those days, though, are long gone; finding a “hi-fi” stereo radio in the living room is a rare thing. Mostly, radio is relegated to cars while commuting.[9] Yet, it is interesting to note that millennials do spend significant time listening to radio.

As with TV, legacy media in radio are facing strong competition from digital platforms. While the Apple iPod and, perhaps most importantly, the iTunes Store, shuttered record stores, essentially the same thing could happen with radio. Digital music players (e.g., iPods and

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[9] Nielsen Web site, “A Millenial Majority for Audio Today,” http://www.nielsen.com/us/en/insights/news/2015/a-millennial-majority-for-audio-today.html (accessed November 12, 2015).

iPhones) now can stream to high-quality speakers in the home, providing a better-than-CD listening experience, far surpassing FM radio. What's worse for legacy media in radio is that these digital music players now automatically stream into car stereos via Bluetooth. Combine that with now ubiquitous digital music services built into cars, such as Pandora and satellite radio, and legacy radio has a hard time competing.

The one remaining advantage for legacy radio is local news and traffic. Yet, services like iHeartRadio and TuneIn bring local news to the digital platform. Mapping software, such as Google Maps and Apple Maps, bring traffic information directly to maps in a far more readable and useful form; listening to where traffic jams are is less useful than automatically being rerouted to avoid those jams.

Since services like TuneIn that bring local news, weather, and traffic directly to users, local legacy media are becoming just another information source, like Associated Press for news or National Oceanic and Atmospheric Administration (NOAA) for weather. That means advertisers may move to the mediating services—TuneIn and Google Maps (especially, Google's Waze app)—and away from local legacy radio. As this happens, legacy local radio will become like any other commoditized service; these stations may remain viable, but they will lose their social and cultural impact.

Set-top boxes

The war for the living room—specifically, the television—has waged for years. Both media companies and technology companies want to control the "set-top box." This box is the device that connects satellite, cable, and the internet to a television. In its simplest form, it is the switch that controls which media is displayed on the TV. In more technologically advanced forms, it provides so-called "meta data" about content. These meta data are the types of information that appear in the (legacy publication) TV Guide, but in a form that can be read by the set-top box to help in recording shows. In addition, it includes time shifting (DVR) and place shifting (Slingbox), as well as the ability to skip commercials.

Of greater importance, these boxes control what comes into the living room. This is powerful: These devices can monitor what content gets watched with precision—goodbye Nielsen TV logs—which yields very valuable information. In addition, these boxes, by virtue of being directly connected to the consumer, are of great interest to advertisers. For example, why bother buying ad time on a show and *hope* that the audience is watching when you can choose specific demographic groups (regardless of show) and be sure they will see your ad?

The growth of set-top boxes is staggering,[10] even with some sales drag in 2015. As Apple's new Apple TV set-top box enters the market, it will likely grow the entire market for set-top boxes. Already, Apple has the dominant platforms for streaming paid TV.[11] Interestingly, in its push to new media from legacy media, Dish Network makes its set-top box, the *Hopper*, the center of its promotions, not the content of its channels (which is commoditized).

An interesting indicator of the importance of set-top boxes is that TV manufacturers now sell "Internet-connected TV," which integrate the set-top box into the TV itself. These devices connect TVs to all types of media, from things like Netflix to Pandora to specialized content providers. TV manufacturers are trying to become the set-top box of choice. Clearly, they do not want to tie their fortunes directly to legacy broadcast and cable/satellite providers. In other words, it is now simply too risky to bet on the old model for TV manufacturers: build a TV to display content from legacy providers.

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[10] Plant Engineering Web site, "Shipments of Connectable Set-Top Boxes to Nearly Double by 2017," http://www.plantengineering.com/single-article/shipments-of-connectable-set-top-boxes-to-nearly-double-by-2017/44ae0afb222a668b83f1585af14443f6.html (accessed November 30, 2015).

[11] *Fortune* Web site, "Guess Which Company Already Dominates Everywhere TV," September 4, 2015, http://fortune.com/2015/09/04/apple-tv-everywhere-share/ (accessed November 20, 2015).

As noted in a *Fortune* magazine article,[11] paid streaming viewers watch an enormous amount of TV. While legacy media still demands a larger audience size than digital platforms—the streamers and cable cutters—legacy media has much for which to be concerned. Part of the reason legacy media, TV in particular, remains strong is that Internet media is just starting to become widely available. As Internet media content grows, audiences will follow.

We have seen this before with music. The convenience of digital platforms, in relatively short order, completely upended the music industry. Remember Tower Records?[12] Set-top boxes, in all their forms, are helping to end legacy media, or at least dramatically alter its business and influence.

The demise of the studio

We have mostly commented on the significant technological changes—networks, digital platforms, set-top boxes—that are dramatically changing how media is distributed to consumers. By both opening and creating new distribution channels, these technologies are weakening the hold of legacy media. Distribution channels are the way to control media. Controlling the airwaves was, for a time, the key to creating a media stronghold; then, controlling cable and satellite was the key. But, new technology has weakened these strongholds.

Legacy media, however, had one additional tool at its disposal: the studio. At the advent of radio and TV, studio equipment was enormously expensive. To run and maintain this expensive equipment, studios required many highly skilled, highly paid professionals. Studios were (and are) large spaces that needed to be lighted, heated, cooled, maintained, cleaned, and so forth. That was simply to create content; production facilities were needed to package a show for

[12] Wikipedia database, "Tower Records," https://en.wikipedia.org/wiki/Tower_Records (accessed November 22, 2015).

distribution. With all the personnel, real estate, and expensive equipment, studios required substantial administrative staff, which led to rather large companies.

Taken together, these were substantial barriers to entry in the legacy media business. One needed, at a minimum, substantial capital, personnel, and access to limited, therefore expensive, distribution channels. The idea of an individual person filming, producing, and distributing a weekly TV show was preposterous. As YouTube stars have shown, that idea is no longer preposterous.

In one of the greatest technological changes of the modern era, all the technology needed to produce high-quality TV shows costs, at most, a couple of thousand dollars, and substantially less than that for lower quality shows. An iPhone has high-definition (HD) quality video capture without requiring elaborate studios. Editing software is low cost and runs on laptop computers. Even sophisticated effects, such as compositing (i.e., green screening, as used in TV and movie production), are possible with consumer software and a couple weeks of self-training.[13] In addition, software makes it possible to perform sophisticated audio editing for free. Producing very high-quality video is also possible with free or inexpensive software. We note that everything from TV to movie-length media can be produced with these tools.

Studio space is no longer needed, as today’s equipment does not require the lighting or sound engineering required for older technology. Moreover, today’s tastes accept simple, authentic settings and do not require the elaborate sets used in movie or TV.

Distribution is even easier: Uploading a video to YouTube requires a few clicks on a webpage (and a decent Internet connection). Distribution through other channels, such as Twitter or Vimeo is just as simple. So, with a smartphone, a laptop computer, a few free or inexpensive

[13] Debugmode Web site, “Wax” [Homepage], http://www.debugmode.com/wax/ (accessed November 23, 2015).

programs, one has all the technical things necessary to produce a TV show or a movie. With a free YouTube account, one has free *worldwide* distribution.

The interesting thing is that these technologies scale: At one end of the spectrum there is a single person publishing via YouTube, and the other end there are major studios producing highly technically and artistically sophisticated content, such as feature-length movies and TV shows. In the middle, there are many small- to medium-sized producers, euphemistically called indie (independent) producers. This full spectrum is fantastic: Consumers get a range of content that was previously impossible to get. It is unlikely that this spectrum will close: YouTube stars are an important cultural and economic asset, as are indie movies, as are full-length movies. We believe the same holds for TV shows, music, performing arts, magazines, newspapers, and so forth.

The computer-game industry is an example of this spectrum. There are lots of small studios—one to two persons—across the world producing games for a variety of platforms. There are fewer medium-sized studios across the world. And, there are even fewer large-scale (the so-called AAA) studios. We can size this in terms of production costs: Small studios will spend $40,000 to $100,000 to produce a game; medium-sized studios $75,000 to $1,000,000; and, large studios will spend north of $50,000,000.

All these studios compete for customers on the same platforms: iOS and Android, PC/Mac, and consoles (Sony PS 4, Microsoft Xbox One, and Nintendo Wii U). Distribution is virtually identical for all types of studios using the digital distribution "storefronts" provided by each platform. While in some cases, large publishers work with smaller studios to help with creation and marketing, but this is not necessary. And while larger studios generally have more money for marketing, in the digital storefront all developers are treated the same.

Large and complex “AAA” games, such as Electronic Art’s *StarWars Battlefront*, have found success. So have small indie games, such as Hipster Whale’s *Crossy Road*. Games-as-art games, such as Thatgamecompany’s *Journey*, have also found success. The variety of games available to gamers has never been greater, nor have the opportunities for game developers of all types. We believe this is true for media producers of all types.

The Current Landscape

The best thing about the destruction of legacy media companies is the resulting unleashing of creativity. With so many distribution channels all clamoring for content, there is now room for a wide variety of content, as the gaming industry is a good example. The variety and quality of content available to consumers has grown. No longer hampered by legacy media constraints, edgy and exciting drama series like Netflix’s *House of Cards* or Amazon’s *Mozart in the Jungle*, are available.

One could argue that legacy TV is way behind the curve. HBO has for years developed dramas, such as the *Sopranos*, that would have no place with legacy media. Perhaps HBO may, in some ways, be considered a legacy media company, especially considering when it was formed—1972—and who owns it—Time Warner Cable.[14] Yet, in many ways, HBO does not act like a legacy media company, particularly with regard to fully utilizing new distribution channels, such being unbundled from traditional cable packages. HBOGo caters specifically to cable cutters.

Another example is AMC Networks, which produces, among other things, the wildly successful drama *The Walking Dead.*[15]AMC is similar to HBO in being able to thrive in the new

[14] Wikipedia database, “HBO Channels,” https://en.wikipedia.org/wiki/HBO_channels (accessed November 23, 2015).
[15] Wikipedia database, “AMC Networks,” https://en.wikipedia.org/wiki/AMC_Networks (accessed November 23, 2015).

media market by creating high-quality programming and pushing digital distribution platforms. Also like HBO, AMC is able to draw great writing, directing, and acting talent because they gain critical acclaim and draw large audiences, in part because of savvy distribution using new media. Agile legacy media companies are moving to recast themselves as new media. They retain the studio model of the past, but use distribution channels of today.

As we move past TV, the amount and variety of content in music and spoken word is simply staggering. Consider music—the number of podcasts, websites, and Internet-only "radio" stations. The very popular iOS and Android app *TuneIn* claims over 100,000 radio stations from around the world![16] Some of the radio stations are legacy (broadcasting over the airwaves) and many are Internet only. Streaming music services, such as *Spotify* or Apple *Music,* provide listeners access to tens of millions of musical pieces. These services provide access to the popular and to the obscure. Want to listen to *Notre Dame* organum and early polyphony? It is easy to find online. The latest hits? No longer do you have to listen to legacy radio, simply bring up your favorite music service. Access your entire CD library on any device, anywhere you want? Apple has you covered. In short, the availability, quality, variety, and depth of music collections today is simply amazing.

We make the same argument for video. Video services, like music services, provide unprecedented access to both current and historical video. For example, want to watch the *BBC* documentary "The World at War"? There's an Internet video site for that.

Yet, as exciting as these things are, they are not the most important, nor the most interesting. Consider the YouTube star Ryan Higa.[17] He writes and produces his own video show with a small staff, and publishes and distributes on YouTube. He draws viewers comparable to

[16] *TuneIn* Web site, "Listen to Your Favorite," http://tunein.com (accessed November 23, 2015).
[17] "About Ryan Higa | Higa TV Productions LLC," http://higatv.com/about-us/ (accessed November 30, 2015).

network TV shows. Your children probably have no idea who Brian Williams is; they have likely never (willingly) watched CNN or Fox News. But, they know Ryan Higa.

Higa is an example of the new type of media star. As we discussed earlier, the ability to create and distribute high-quality video is within the grasp of nearly everyone. And, distribution channels are cheap and easy to use, especially YouTube. Combine these things with social media and it is no wonder legacy media is dying; it is struggling to keep up with current media.

The line between media creators, i.e., legacy media, and media consumers has been redrawn. Now, everyone can create media, and nearly everyone consumes it. The consumer has become the producer. Consider the following examples.

In addition, new media has dramatically increased the variety of content that is available. For example, twitch.com provides live streaming of video games, particularly e-sports. Twitch's audience size is huge: in 2013, it averaged 45 million *unique* visitors per month.[18] This large, enthusiastic audience of gamers was previously ignored by legacy media and likely would continue to have been if twitch.com had not arisen.

Periscope.com is another example of new media. Periscope allows users to live stream video from their smartphones. Users live stream all sorts of things: vacations, sporting events, places of interest, and so forth. While not as large as Twitch, Periscope's audience size is estimated to be around 10 million users overall and 1.85 million daily users.[18] These are comparable to cable news audience sizes. [19]

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[18] *Forbes* Web site, "Twitch-Streaming Video Audience Growth," http://www.forbes.com/sites/davidewalt/2014/01/16/twitch-streaming-video-audience-growth/ (accessed November 24, 2015).

[19] Mediaite Web site, "2014 Cable News Ratings: CNN Beats MSNBC in Primetime Demo, Fox Still #1," http://www.mediaite.com/tv/2014-cable-news-ratings-cnn-beats-msnbc-in-primetime-demo-fox-still-1/ (accessed November 30, 2015).

We only listed a couple of services to illustrate that taken together, digital platforms with all their various content services—streaming video and music, social media, websites—likely surpasses legacy media in cultural relevancy and importance to a variety of audiences. Note: We have not included “traditional” social media, Facebook and Twitter, for example, and the vast audiences they have and continue to build.

The implications of new media’s growth and importance are profound: There is no longer any mediating institution—for good or bad—standing between anyone and the world. This is not hyperbole. “Arab Spring,” the Syrian war, ISIS’s reign of terror are all broadcast around the world via social media and new media by regular people on the street. It seems at times legacy media follows new media. Musical artists regularly release new music via streaming services before releasing their anachronistically named album. In short, legacy media is fast losing both its audience and cultural hegemony.

Summary

If you like free markets, free exchange of ideas, and vibrant cultural exchanges, then the new media world is exciting. There are virtually no barriers to entry, media distribution is efficient and nearly instantaneous, and production technology is cheap, easy-to-use, and ubiquitous. These things have led, and will continue to lead, to an incredible unleashing of human creativity.

The importance, both economic and cultural, of the legacy media is waning. This is not to say, however, that there is no place for professionally written, acted, and produced television, radio, and film, nor professionally written and edited newspaper and magazines. To paraphrase a currently popular phrase: There will always be room for curated artifacts.

Is the decline of legacy media good or bad? On the good side, we get to see a much greater, if sometimes more raw, variety of human creativity. YouTube is a cultural treasure, as are the vast number of blogs on Wordpress, Twitter feeds, Vimeo, Twitch, etc. On the bad side, it is much easier now than ever before to create and distribute trashy media. Rumors are easy to start and hard to kill. Misinformation and disinformation are easy to distribute, and unfortunately, find malicious homes.

So far, the positive far exceeds the negative. Access, variety, and cost are all working in favor of new media. Even with its rough edges, the new media is a wonder.