

washingtonpost.com
Digital Television
 Digital Television Special Report

Mark Cuban
 Co-founder and President, HDNet
 Thursday, September 2, 2004; 11:00 AM

The Washington Post's [special report on digital television](#) covers issues ranging from recording to over-the-air reception.

Mark Cuban, co-founder, chairman and president of HDNet, was online Thursday, Sept. 2, at 11 a.m. ET to discuss digital television.

[HDNet](#) provides viewers with a network of over 20 hours of topical news, sports, music and entertainment programming. HDNet news and entertainment includes original series "HDNet World Report," "Face 2 Face with Roy Firestone," "Hollywood HD," "HDNet Concert Series," and live sports productions including NASCAR auto racing, NHL and MLS games.

Cuban is also the outspoken owner of the NBA's Dallas Mavericks and co-owner with Todd Wagner of 2929 Entertainment, a company that owns a film and television library, two movie production companies, a film distribution company, and the Landmark art-house theater chain. He will be featured in a reality show "The Benefactor," premiering on the ABC network in September 2004. In 1995, Cuban co-founded Internet broadcasting service Broadcast.com and sold the company for \$5.7 billion to Yahoo! in 1999.

Editor's Note: Washingtonpost.com moderators retain editorial control over Live Online discussions and choose the most relevant questions for guests and hosts; guests and hosts can decline to answer questions.

Washington, D.C.: Is there any concern on the part of HD content providers that the cost of producing, editing, and broadcasting HD content will become too high and cable operators and end users will settle for basic digital? Much like the Concorde was too expensive and demand too low at that price to keep it business?

Mark Cuban: none at all. HD content has value beyond just broadcast. Remember, DVD is better quality than VHS or broadcast. HD is a format that enables multiple distribution types, from DVD to future higher quality DVDs to movies and more.

If anything, more likely case is that beta goes away

Tyler, Tex.: It is said that less than half of Plasma TV's sold are HD. Concerning Projection TV sets, what is the future of HDTV in terms of projection and plasma sets? What can people like you do to significantly reduce the confusion and outright misrepresentations of TV set manufacturers and vendors?

How can the public (consumer) inform itself best when weighing the HD claims and hype?

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JW

Mark Cuban: the confusion goes away over time. COnfusion over resolution in HDTV is nothing compared to what took place with PCs, Cellphones, DVDs.

What happens is that the competition pushes out the lesser quality , in this case EDTV and the price points get to the point where people dont care about the differences in features.

I couldnt tell you about VChip, 3/2 pulldown, or how to use Picture in Picture on my analog TV sets, and that never stopped me.
Heck, I cant figure out half the features in my car....

Arlington, Va.: I dig your blog at www.blogmaverick.com. What are your favorite blogs that you read regularly?

Mark Cuban: i go to www.weblogsinc.com and usually go through the tech stuff there

Wheaton, Md.: Mr. Cuban, a couple of quick questions, please. First, how many people in the United States will be without TV when HDTV is fully implemented? Second, what is the justification for giving away spectrum to broadcasters? Third, do we really need to see the sweat dripping from a Dallas Maverick player's chin courtesy of HDTV?

Mark Cuban: No one will be without TV.

And the digital spectrum is being given to replace the analog spectrum.

Third, you can see whatever you look for...

College Park, Md.: Is there a significant difference between component connections and DVI? Also, is it worth is to buy "Moster" cables?

Mark Cuban: Yes. One is digital the other is analog. That doesnt mean everyone will always see the difference. It depends on the quality of all the pieces in your TV setup

and as far as cables, I just use name brands that are priced competitively...

Washington, D.C.: Mark --

First, what do you think about the NBA next year with Shaq moving to Miami?

Second, do you think the federal government should take a more active role in speeding up the digital TV transition so HDTV can truly take off? And how soon do you think it will be before HDTV is in most homes?

Thank you.

Mark Cuban: I wish him well and hope the lakers suck wind :)

Its self serving for me to just say yes.... But yes. The spectrum that is recaptured can be sold off for billions of dollars, and the country can use that money right now.

And price points will continue to fall on HDTVs. Over the next 7 years, the percentage of the 25mm sets that are sold each year will increase from the 25 pct of 2004, to 90 pct in 5 years, and at that point, we should start to see more than half , and after half comes most !

Washington, D.C.: In the next couple years, do foresee bandwidth becoming a scarce resource so much that cable networks without a dedicated HD channel will be fighting for space?

Mark Cuban: great question, and the answer is yes. There is already a shortage of bandwidth available. So you will see networks fighting for full bandwidth delivery of their HD channels.

I think we will have an AM/FM type setup, where HD networks are the equivalent of full bandwidth stereo on FM, and news, talk, and other smaller nets will get the equivalent of AM bandwidth. That is to say, they will be shown in standard definition and probably be considered 2nd class nets

Clifton, Va.: Mr Cuban,

The reason I haven't purchased a HDTV as part of my \$10k home theater systems is price. Unless I want to spend \$35k or more for a front projector there isn't any thing out there right now under \$6k that delivers the full 1920x1080i HDTV. 720p only delivers half of the available pixels or less. I would like to purchase a 55in RPTV that delivers 1920x1080, accurate color and great blacks but one does not exist at any price. I dont have the cash for GTT 9in front projector CRT. \$47k is a little much on my govt employee salary like 65% of my gross yearly income. BTW its is nice to see a visionary out there providing the HDTV program and taking risks.

Mark Cuban: Every major TV manufacturer is coming out with a 1080p TV this fall and will be priced competitively with the old 720p

TV manufacturers are in a war to win the HDTV market place, so you will see picture quality and features improve considerably, and prices fall quickly

Harrisburg, Pa.: How was hockey and soccer viewership this past season? I think there is growing interest in these sports. Do you have forecasts on how this sports may grow in appeal?

Mark Cuban: viewership and interest was great on HDNet !

Manassas, Va.: Why does my local CBS (for example) TV station control how I get my CBS HDTV feed Directv. Why after buying the TV, Receiver, Triple LMB Dish and Subscribing to Directv that I have to buy a antenna to get my local channels? I was able to watch the olympics this year(although delayed) in HD, but I could not get the superbowl. I understand that nbc in my area is owned & operated by the parent corporation, and cbs is not, but why are we still living by these old rules of who owns there customers, instead of the customer buying from who they want to? I love HDNET. Thanks for being a visionary. You are helping push this technology forward.

Mark Cuban: Thanks for loving HDNet and spread the word !

Local affiliates dont want to lose eyeballs. Thats how they sell advertising. So non CBS owned affiliates typically dont allow national satellite companies to pick up their feed.

I think that will change as the networks make affiliates appreciate the fact that they will lose viewership and affinity for their network and the station if its not available in HD.

I really think as the number of HDTV sets grows, we will see ratings skew to favor HD networks

AS you know, there is a huge benefit to watching TV in HD format. ITs a completely different viewing experience !

Arlington, Va.: What type of programs will force consumers to buy digital TVs? I understand sports viewing is especially enhanced.

Mark Cuban: its not about the programs.. Its the price point of the TVs. There wasnt 1 specific piece of software that pushed people to buy PCs over the years, but they got to a pricepoint where people said why not.

I think HD will work the same way. Particularly when Plasmas and LCDs in the 40" in up area fall under 1k dollars

Burke, Va.: What are some of the techniques you use when producing programming that maximize the clarity/other benefits of digital tv?

Mark Cuban: we let the picture do more of the story telling. There can be less dialogue and fewer cuts.

Herndon, Va: Are you concerned about the established outlets eventually broadcasting in HD and eroding the one selling point of your company? How will you counter that development?

Mark Cuban: not at all. We have great programming and will continue to improve.

the one certainty about HD viewers, the more they see, the more they want. No one ever says they have enough HD.

If anything, highly rated cable networks that stay standard def too long will suffer.

HDNet and HDNet Movies will continue to take viewership and have lots of happy customers

Bethesda, Md.: Will your KRON deal be a template for other local TV HD distribution. What kind of markets will you seek to get HD Net onto cable systems?

Mark Cuban: we sell our content in a variety of outlets, and we hope to sell more to TV stations like KRON.

It wont be first run HDNet content, but will be content that has run its course on HDNet, but can serve as a great way to fill out a schedule for a station

Washington, D.C.: What do you think about local stations concerned over viewers receiving national feeds of HDTV networks (which affect satellite users more)? How much is copy protection concern slowing growth of HDTV?

Mark Cuban: I think local affiliates and their networks should be able to work out deals to address any issues over national distribution of a network feed. That is a better option than losing the viewer to a competitive network

as far as copy protection, HDNet wont copy protect any of our original content. I think the fuss being made over copy protection of HD content is a joke that politicians play on us to get more money from the hollywood lobbies.

One thing I have learned, is that the number 1 job of a studio head is to keep his or her job. THE easiest way to do that is to create a boogie man that only he or she can respond to. That boogie man is internet piracy

next thing you know, the same idiots will outlaw pockets in trousers and purses to prevent shoplifting...

Brooklyn, N.Y.: Mark,

First off, great pick of Devin Harris. As a UW grad, saw him play and he's gonna be excellent at the point. You might be the first team in NBA history to have two Wisconsin players on the same team.

On tech matters, what window do you see for HD-enabled plasma sets to come down to a more affordable level (\$1,000-2,000)? Desperately want one, even if not 64", but the \$4000+ price tag is prohibitive.

Also, do you think that there will be more programming developed with HD specifically in mind, as opposed to simply re-broadcasting the same shows in HD? What kind of market saturation is needed (e.g. percentage of homes w/ HD sets) to make this possible?

Mark Cuban: At HDnet all of our programming is developed with only HD in mind. I think people are seeing how much better it works and over the next few years the amount shot for HD exclusively will increase

in terms of plasma prices, as i said earlier, the prices are and will come down.. This fall, expect under 2500 dollars, in a few years it will be under 1k

Sterling, Va.: I have an HD ready set. If a show is broadcast in high definition, do I get it or do I need a receiver of some sort?

Mark Cuban: Yes, you need to have a set top box from your cable or satellite company to get HD programming..

Call your sat or cable company and tell them you want HDNet and the set top box required to get it :)

Arlington, Va.: First of all, Mark, big fan! Pro sports - not just the NBA - needs more owners like you: young, pationate & willing to spend money to bring the fans a winner. (Note to Polin: time to pass the baton to Leonsis!) But here's my question: when is network HDTV going to catch-up?! CBS/ABC/NBC have spotty HD programming: cuts out, one camera for a stadium event, etc. What gives?

Mark Cuban: they are all public companies and have to make shareholders happy. So there is a lot of short term thinking that goes on. That said, the number of hours shot and shown in HD is rapidly increasing.. ESPN/ABC do a good job, as does CBS and of course HDnet and HDNet Movies

Washington, D.C.: I don't know much about HDTV, other than that it's a pretty cool viewing experience. If I'm willing to spend say \$5000 on one, do you recommend waiting to buy one until prices come down and more kinks are worked out, and if so when would that be?

Mark Cuban: first of all, you can use your PC monitor as an HDTV if you want. Any PC Monitor is compatible. THEY are usually 4x3, so you dont get the widescreen impact, but it works and looks great.

For 27" TVs you can buy an HDTV for under 500 dollars now at most bigger consumer electronics stores.. today

Washington, D.C.: What is HDNet's college football deal this fall?

I thought I saw an ad (on HDNet) where you'd be showing Vandy, Navy, and Duke games, but I can't find that info on www.hd.net's sports section.

Was I dreaming, or do you have a deal with these three schools?

Mark Cuban: We have a deal with Navy, and will be showing their games against DUke and I think Vandy.... you werent dreaming :)

www.hd.net , subscribe to our email newsletter to get the latest

Mclean, Va.: Is there any point in getting an HDTV Plasma tv and spending the extra money or just getting a EDTV which supposedly has almost the same quality as HD. I have no idea what to do...spend the premium or just get an ED now for a fraction of the price.

Mark Cuban: getting EDTV is a mistake. Yes it saves money, but it will be like having a blurry TV when all shows are in HD, and on top of that, we are getting to a new cycle of DVD, where HD on DVD will be here in about 18 months.

When that happens, even your DVDs wont quite look right

Ashburn, Va.: Do you think you will be adding your service to any other satellite providers and or cable companies anytime soon...ie..Voom or Cox Cable.

Mark Cuban: No to voom, but we are in discussions with Cox and Comcast.

call your provider and tell them you want HDNet ! it will help

Silver Spring, Md.: Is cable card worthwhile or do cable providers encrypt everything? Comcast in MD?

Mark Cuban: I had high hopes for cablecard, but it really is more hassle than its worth. You are better off just calling comcast and asking for an HD Set Top Box

and dont forget to ask for HDnet !

Principality of Monaco: Formula One racing:

Are there any chances for the auto races to be broadcast in your country in High Definition?;

Mark Cuban: we already do Nascar and Champ Car in HD on HDNet

Vienna, Va.: How do you think HDTV will change the way we work our Internet, cell phones and view television? What are some of the future projects HDNet is working on?

Mark Cuban: Convergence is always an interesting topic. I kind of approach it from the perspective that all things digital are just bits, and they will be created, distributed and consumed in the way consumers want them.

Right now there is a war going on to figure out what devices will hold and distribute the digital content in our homes. Will it be a set top box from the cable or sat company. Will it be a PVR. Will it be a Media PC. Will it be all of these things in one box, or separate boxes and who will be the company that sells and installs them.

I dont think we have an answer right now. The cable and sat companies want to own that piece, as do the computer companies and the Tivos of the world.

Who ever comes up with the most cost effective solution that is simple to implement will win.

In the end, the consumer will be the winner

As far as HDNet projects, we are exploring every alternative to distribute our content. BEcause we dont think piracy of our content is an issue, we will distribute it in the way that is most convenient for the consumer. It might be on keychain usb drives. It might be all of our content on a 500gb drive. It might be content distributed at different quality levels, DVD, HDTV, and Uncompressed HD (which blows away what you see from broadcast HD today)

I love to geek out on this stuff and HDNet will come up with something makes all happy

Wilmington, Del.: Mr. Cuban,
How do you see HDTV assisting the video game market? Currently xbox has a HDTV converter, ps2 has scarce kits. With the next gen systems due out in late 2005, how does this bode for HDNet's strategy?

Also, any truth that if games are left on, that the image is burned on the TV, similar to early 80's TVs?

Mark Cuban: I think gaming will help push HDTV from 2 levels. First the PCs and gaming devices will push the resolution and picture quality envelope to create technology that has a better visual experience for the users.

As the boxes support HD, then more HDTVs will be purchased to experience HD with games. And as more people experience high resolution games, they will expect the same with their regular tv programming, which is good for HDTV and HDNet.

And for the games that offer the ability to play non game content, we will make our content available in the highest possible resolution for those systems. So if Xbox or PS2/3 support HD DVD or Blu Ray DVD (future HD versions of DVD), we will be there. IF they support content playback from external drives. WE will be there.

we want to allow consumers to buy content and watch how and when they want.

And as far as burn in... Only if the same image is left on continuously . So if you use it to play games and watch TV , you wont have a problem.

In the 80s, people left their systems on all night and the vendor logo burned in. Thats not an issue today unless you leave your system on and go on vacation for a couple weeks

Clifton, Va.: Mark,

You drive a BMW w/ I drive a Mercedes with a similar system?

Mark Cuban: nope. a lexus with a lexar MP3 unit sitting next to me.

Im not an Ipod fan. I like the lexar because I can swap out the drives to have the music i want. Its a hassle to make all the playlists and random has too many choices with that big a drive

Manassas, Va.: Another question for you, I thought I read that you were coming out with another HD station, is this true?

Mark Cuban: cant tell you :)

we are exploring options

Silver Spring, Md.: Mr. Cuban, the FCC estimates that 15% of the public use only over the air TVs -- won't they be out in the cold when DTV is put in place completely?

Mark Cuban: Not at all. An ATSC tuner with an SVideo and/or cable out will be cheap and easy to put together.

Bethesda, Md.: HD DVRS (digital video recorders, like TiVO) offer a combination of best picture and the best control. Their prices are coming down too. Yet advertisers are still scared of what DVR does to conventional TV economics. How do you see the intro of HD DVRs playing out? What's the outlook for HD DVRs built into cable and DBS boxes?

Mark Cuban: everytime there is a new technology, advertisers and hollywood cry about their futures, but what actually happens is that more people end up consuming more content.

DVRs can be used to personalize advertising. People can watch the shows that they otherwise would have missed. HD users watch more tv, and the HD allows the ads to be more entertaining.

Yes DVRs can allow people can skip commercials, but the advertising community has always questioned whether or not the 30/60 second spot is the best way to market. The new technology creates the opportunity for smart people to do smart things and come up with new ways to market.

As far as how things progress in the future, if the DVR and cable/sat companies listen to consumers things will go really fast. If they are short sighted and try to make piracy a stumbling block, then it will slow down DVRs, but open the door to smaller companies to jump in

Remember, whether it was VHS, DVD or digital satellite, hollywood has tried to crush it, but it always opened the door for someone smart to step in

Falls Church, Va.: Thanks to the Post for arranging this opportunity.

Mr Cuban,

I understand the bandwidth requirements for HDTV 'over the air' or 'over the wire' are large. How large? I think the typical CATV feed from the cable company is setup for 950 Mghz now, hoiw much should that be pushed to - 2500 Mghz?

Mark Cuban: its about 19.4mbs . About 6x the size of a regular tv network on cable.

Regardless, i dont see cable systems upgrading their plants anytime soon. Instead , you will see them try to move analog networks, which take up 38mbs to digital and free up bandwidth that way

Colorado Springs, Colo.: Do you see HDNet being bought by a large media company in the next 2 to 3 years when they wake up to the fact they cannot produce enough HD content themselves and can't use their exsisting library?

Mark Cuban: nope.. i want to remain independent, but im happy to help them and let them pay me for it !

Reston, Va. - HDTV is simple with OTA antenna: I think most people believe they need some magical antenna to get HD reception. But with my tunner box, I get beautiful local HD stations with a \$20 Radio Shack antenna. Its so simple to hook up!

But, HDNET rocks. Thanks for all the hard work you do.

You strike me as the ultimate gadget geek, do you have the HD Tivo unit?

Mark Cuban: Yep on both accounts.. Im a gadget freak, and i have an HD Tivo that I love

Sugarland, Tex.: First of all I am a huge fan of yours. Before I bought my first HDTV I had emailed HDNET and was blown away to get an email back from you! Totally cool. Just wanted to say thanks for being such a visionary and being a leader in this industry - too many followers out there already.

Do you think theres a reason RPTVs arent more popular as an HD choice? I bought my 52" for \$1400 and when tuned it gives me a stunning HD picture. Sure its not as sleek as a plasma, but it has more than done the job and will continue to do so even after I buy a plasma.

Thanks again.

Mark Cuban: They are far more popular in most cases. Its just that plasma and LCD are sexier and get all the press....

kind of like the mavs and lakers :)

Im with you. If i were walking in the store today, a 52" or 60" HDTV with all the goodies for under 2k is what i would buy

Washington, D.C.: "In the end, the consumer will be the winner"

It certainly doesn't look that way right now. Hollywood has bought the "broadcast flag" legislation that it wanted, and the hardware manufacturers don't seem to be putting up any kind of fight about it. It's not hard to imagine that copyright law will be rewritten within the next 10 years to completely remove all of the consumers rights. How is the consumer going to end up winning?

Mark Cuban: Its going to take independents like HDNet to offer consumers what they want. If consumers dont want copy protection, HDNet will be there without it.

I agree that politicians have gotten really slimey on this issue. Could hollywood be any deeper in Senator Hatch's pants ? The Inducement act is a travesty.

We will spend taxpayer dollars and resources trying to protect an industry that doesnt need protected rather than on helping people who need it. Its a shame and why I hate politics.

But to answer your question again. Ingenuity and inventiveness beats politics every team in the tech world. This will be no exception.

Cheverly, Md.: Hey Mr. Cuban. You mentioned that HDTV prices are going down because of competition. Have prices been dropping rapidly or has it been gradual? Also, any chance you'll run for President? GO MAVS!!

Mark Cuban: run for president. I cant stand the slime of politics.

And as far as HD prices, they are coming down quickly, as much as 40 pct per year

Seattle, Wash.: In what way is a cable card too much hassle. I am about to buy a Mitsubishi with one. I understand Comcast supplies the cards free. My question so far is how to control tuning with my Tivo channel changer. i realize it won't record HD but i currently run two feeds to my existing Samsung RPTV

Mark Cuban: the card is a hassle because you have to have the cable company come out and install it. Then its not 2 way. It doesnt have all the established programming guide features, and because its a hassle for the cable company to support, they try to find every reason to get you to use a set top box..

this is one example of version 1.0 of a technology being one you should pass on

Without an HD specific Tivo, you cant control the tuner at all.

New York, N.Y.: What could advertisers do to connect with the HD audience?

Mark Cuban: advertise on HD networks like HDNet, HDnet Movies, ESPN and discovery HD.

HDTV viewers appreciate and support advertisers that support HD

Vienna, Va.: When will High Definition stand alone TIVO like recorders start to appear? They have been promised for some time, but are not available?

Mark Cuban: You can get them from Dish and DirecTV, and from most cable companies.

Bethesda, Md.: Thinking back on all that has happened to the Internet in less than 10 years since you were doing Broadcast.com: What are the major directions we'll see in IP and HD over the Web in the NEXT 10 years.. What developments are YOU most excited about .. or want to make happen?

Mark Cuban: the thing about the net that is dissappointing is the lack of bandwidth. Other than for specialized backbone environments, there really isnt enough bandwidthto the home to enable any new or exciting applications for a while.

Cheboygan, Mich.: I am having trouble with over the air digital reception. One of the TV stations is telling me that leaves from trees will block UHF digital signals. Is this true? How much trouble can we expect to have with over the air transmissions unless and until stations go to VHF frequencies?

Mark Cuban: It really depends on the tuner you are using for HD. The newest generations will ahve far fewer problems...

Ask if your tuner has the latest and greatest reception technology

Washington, D.C.: Mark,

First off love you man. You have done great for sports and especially a great topic for PTI.

Any case, when can we expect other cable stations to finally pick up HD (i.e. MTV)

Thanks

Mark Cuban: No idea.....

Dan, Toledo, Ohio: Recent college grad here and worked in consumer retail mgt at electronics store (can I get a job with you?? j/k)...Just wanted to tell you that I admire your innovation and I wanted to know if you had any plans with your forward thinking companies to get into the manufacturing end of digital television emergence. Customers I used to have loved our instore HDNET content and I love it at home...more live coverage would be awesome though. Keep up the innovation!

Mark Cuban: not really into the manufacturing side.... but we will always look for new ways to get HDNet contnt to you !

thanks and spread the word on HDnet !

Båtsfjord, Norway: Given a trippel play scenario, is it possible to have HDTV signal through a copper line into the house. What is the bit rate requirement? What kind of codec is needed for this to happen?

Mark Cuban: is it possible, yes. But it would be distance restrained. All the XDSL options over cable have a trade off between speed and distance. That creates and issue for the phone companies trying to provide video to the home. To be competitive today and in the future, they will need to be able to provide 19.4mbs (to support todays and future quality versions of HDTV).

This is why rather than over cooper scenarios, we are seeing phone companies push fiber to the home

Mark Cuban: I want to thank everyone for taking the time to ask questions.. I hope i did them justice!

Dont forget to call your cable or sat company and ask for HDNet and HDNet Movies and dont forget to watch The Benefactor on ABC starting Sept. 13!

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