Hello, everyone, and welcome back to another episode of the Brainstorm, episode 10.

Today we have our first external guest to come talk about Penn National and ESPN.

We have Ryan Butler, senior editor at OnlineCasinos.com.

And then we will also be talking about AI and contrails.

But first, let's start with the news of the past week.

One national ESPN, Ryan, we are so happy you could join us.

We'd love a quick background on yourself, and then can you tee up this news that kind of broke the internet, at least for my timeline on Twitter?

Yeah, guys, glad to be here.

And obviously huge, huge news in the industry.

I have been dealing with regulated gambling and media over the last five years or so since the spring port decision in May 2018 that we're all familiar with that started the sports betting boom before that I was different newspaper outlets for different sports and political journalism.

But it's been, again, gaming for about five years here, and this is one of the biggest

stories we've had since I've gone here, since the decision five years ago.

So a lot to talk about today.

And so can you give us a breakdown of the landscape where Penn National falls in and then just over an overview of the deal itself?

Yeah, so overall in the US sports betting, again, in that five years, we've kind of created almost a quadopoly of four major companies, which even really to have a much larger share.

So your big two are Fanduil and DraftKings, which combined have about 75-ish percent market share of which Fanduil has the majority of that Fanduil has half of all overall market share.

DraftKings about 25%.

So those combined are about 75% there with it.

And then you have your two other big ones, which are Bet and GM and Caesars, again capitalizing on their relationships with their existing casino databases, you know, the national tie-ins there.

So everybody else, again, there's probably 40 plus regulated sports books across all the different states across everything else with it.

Everyone else is fighting for 10%, 15% or less.

There's been a lot of that have already fallen, and there's going to be more that fall with it.

So of those kind of remaining companies, Penn is one of the ones that really thinks it has to have a shot, obviously with its ESPN deal.

The biggest things we're looking at for the ESPN is, obviously, A does brand, the ESPN brand, translate to betters, it has struggled with other media companies.

FoxBet, which kind of jumped out, it seemed to be, oh, that's a logical one, tie it in with Fox Sports.

Everyone loves that.

That has fallen.

That's off of it.

We have Max and Bet.

That didn't last very long.

Sports Illustrated even have a partnership that a lot of people weren't aware of.

That's fallen off.

So we've struggled with these brands, and obviously we saw it with Barstool, very loyal fan base and Penn realized or determined that that just wasn't going to work long term.

So it's in a folding, which those companies I mentioned earlier have already, we've seen other sports books fold or in the process of it.

Penn is on indented doubling down with this ESPN one, which is one of the biggest deals we've seen there.

So it's going to be a really interesting look to see, does that A, like I said, is that ESPN brand?

Is that the one that finally breaks through the translates?

And the second thing we're looking at too is Penn uses its own in-house technology.

It paid $2 billion for the score, which is kind of the equivalent to ESPN in Canada.

They've also developed their own in-house tech platform.

The technology is one of those underappreciated, huge aspects of sports betting success.

Draftings and Fandall, yes, they have the DFS brand, the name, they have the brand awareness, all that stuff.

Probably some of the biggest successes has been their technology.

They are the innovators of Simo Game Harleys, which have higher hold percentages than typical standard bets.

And there's different ways to stand out.

When you look at the NFL, it's every book is pretty much the same.

One team is going to be minus three, one team is going to be plus three, minus one ten, big aside.

It's those different innovations.

It's those prop bets, those smaller bets, everything with it.

So again, trying to wrap that all up, ESPN, that brand, and secondly, Penn now with its own in-house tech platform, using that with that ESPN branding around it, can those come by and can they be a force in a market that really is dominated by four companies?

Ryan, I'm so glad you're on, because that was a better rundown than anything I've seen online yet.

So that's amazing.

And what's your gut take on this, right?

Does this actually matter for the landscaper?

Is this just news because it's a great win for Portnoy and a great story, so it's grabbing headlines.

But as you're saying, are people fighting for scraps?

Does it matter for the landscapes and those big two players?

Is this a way that ESPN regained some relevance as their cable subscriptions are slowly trickling off?

Yeah.

Again, that's part of why it is such a big story.

Just to touch on that first now, it's so many different pieces.

Dave Portnoy, the sale, selling it for $500 million, or whatever, getting it back for a dollar, an incredible thing with it.

ESPN and Disney has really been struggling, and ESPN in particular.

If you remember kind of years ago, they joked the nuclear option for McDonald's, which was struggling was making breakfast 24-7.

That was a big deal on a big news story.

ESPN has been kind of flirting with the sports book for years.

Now they finally pull the trigger, so they're going to go ahead with it.

Again, now they don't own it, they're just the licensing deal.

So we'll see with that.

And then again, the biggest question overall is, is there room?

There is room for a fifth big player.

ESPN and Penn are projecting 20% market share, which is really, really aggressive.

That would be incredibly hard to reach just for anybody.

That's going to be tough, but can they go to 10%, which is a roughly double what they have now?

I think it's possible.

One of the big things I think we're just, the difference is with these branding ideas and why maybe I'm a little bit bullish on ESPN, but I look like, if I pull out my phone, if I pull out the ESPN, I'm looking at ESPN app five times a day, just blindly, just seeing what's going on.

I have no idea.

I check ESPN.com every day.

There's some background sports, there's something going on.

ESPN for sports fans is someone brained in our life here in the US.

If they can capitalize on this, well, just getting that deluge of information in your face about betting, it's going to be hard to pass up.

But again, we haven't necessarily seen that be the catalyst.

I think the biggest question is, did that in-house tech platform that 10 and spent $2 billion in part acquiring when they bought the score, can that stand out?

Are they going to be the ones that have better single-game parlays or whatever that next innovation is?

Can they get rid of lag time?

It's really tough if you're watching a game even on terrestrial TV.

If you're watching baseball, it can be a pitch or two behind what's actually happening.

If you're watching online, it's significantly longer, which a lot of people are watching online.

Are they the ones that get that stream where you feel like you're watching it in real time?

Other companies like Fubu have tried that and that technology is in the process.

There's companies working on it.

If they are maybe the ones to innovate or can push that forward, that'd be a big deal.

Caesars has kind of tried this, where they were broadcasting a game on their sports book app to hide in nicely with it.

Well, ESPN has a huge already built-in media network with it.

If the ESPN bet app, if I have the sports book, let's say a Monday night football, and the game is live real-time, and I have the bets right there, the live lines going with it, also if they're integrating it maybe on ESPN too, they have the Manning Cast, what if they had a Bet Cast?

It's completely focused on betting live lines, which again are higher odds.

This is how you differentiate yourself.

You have the best live lines.

Every pre-game bet for spread total money line is roughly the same, slight differences.

You have that.

Are you able to get advantage of it?

Plus maybe the promotions, our Trey Eggman and our Joppa talking about the lines too during it.

It's all of those things.
Again, that's kind of a long-winded explanation with it.
If I knew exactly, I wouldn't be talking to you guys.
I would be a billionaire and you'd have it somewhere else, but these are kind of the
big things that we're looking at.
Maybe my final note on this, one of the most interesting things is if ESPN bet does not
work out, if it's not getting 10 plus percent, that's kind of it.
There's really nothing else.
There's Bet365, which is a major, major European company that is kind of slowly expanded to
the US.
They dominate European markets.
They have great in-house tech.
They're very good at marketing.
Do they try to get in?
That's the only other.
Maybe like an Amazon or something else that we kind of out of the field.
If ESPN bet and PEN, which again PEN we haven't even touched on, is the largest land-based
casino operator.
It has the most properties across the country.
Most of them are smaller.
They don't have any black ships like the Bellagio or whatever, but they have a big
database.
If them and ESPN can't work out, if they're not getting 10 plus percent, that's pretty
much it.
We're going to be Drapkings and FanDuel and 1-2, but with that MGM and Caesars because
they're tied in, and then everyone else just fighting for scraps, kind of like we're here.
It's kind of an interesting thing that maybe if we don't see this in the next couple of
years, it'll be less than a decade in.
The sports betting market in the US has pretty much set itself.
It's an incredible story in itself.
Ryan, I have one last question for you.
I think the point around technology and convenience to the consumer is really important to this
story.
What I noticed in digging through the press release, and please feel free to correct me
if I'm misinterpreting this, but there is within some states where both eye gaming and
online sports betting is legal, what I saw in the press release is PEN will now spin
out the eye gaming portion of the app that was originally tied in with online sports
betting through the Barstool Sportsbook.
That will now be spun out into a separate Hollywood branded app.
In states where it is legal to have both online sports betting and eye gaming, you won't be
able to have all of that wrapped into one application under the ESPN bet brand.
How important do you think that is?
Because when you talk about technology and innovation, there's a lot of ways to drive

consumers into that higher margin eye gaming business, and this is obviously what you're currently focused on.

You're at onlinecasinos.com, so I am curious, you're a take on this because I do think it is an important, yet it was snuck in there at the end that this is going to be separated out.

Nicholas, I appreciate you bringing that up.

We focused this conversation on sports betting, but sports betting is just a small piece of the puzzle for the overall online casino gambling market.

Similar to a casino, if you go into any land-based casino America, you see slots everywhere and you may see some table games, the sportsbook is typically in the back.

It's not usually a prominent thing for most casinos.

It's a way to get you in there, place a few bets, and then they're hoping on your way out you see a slot machine you like or a table game you like and you play it there.

Table games, online casino table games, and slots in particular have much higher margins than sports betting.

A typical sportsbook holds about 7% and online casino can be 25-30%.

It's a huge part of it, and ultimately all this money the Drakking scandal sees in the bet MGM have spent is with the idea of it ultimately the adaptation of more online slots and table game states.

That is a big one for Penn.

It uses the Hollywood brand name for a lot of its properties, so that's a little bit more common.

You're hoping there, but yeah, the problem with going all in on ESPN is that you are just sports.

Again, that's a lower margin thing with it.

Again, we've talked about how does ESPN bet play into the sports betting picture?

10% is doable if you talk everything with it.

For Penn now, for the more lucrative online casino, this maybe does handicap them.

If you follow Barstool brand, some of their personalities, their guys, they would do slot nights or whatever.

They do live streams, live dealer online table games are getting more and more popular.

It's a bigger part of the picture there.

They lose that.

Obviously that wasn't a huge factor, but there's something else with it.

Hollywood brand, which is known with brick and mortar casinos, smaller casinos that are an older audience, are these players going to really jump into the online casino?

Probably less likely.

They don't have that.

Yeah, with ESPN dead because it's a licensing deal.

ESPN did not buy its own sports book.

It's just, sometimes it uses the term skin, it's just a brand relabeling of the existing apparatus.

Yeah, they lose that online casino connection and it could be a difficulty there long term

converting people to those casino players who are more lucrative.

Yeah, it's something that Penn's going to have to look at as it continues with this massive double down bet.

Again, $2 billion on the tech and the score.

You're looking at hundreds of millions of dollars potentially depending on the duration of the deal online last.

For the ESPN licensing, they already spent several hundred million dollars for Barstool and gave it away for a dollar.

It's a lot, a lot of money for what is now been a comparatively lower margin offering when you're breaking more casinos and when a company that, again, they're at 5% market share right now, after what, $5 billion, not to mention other costs of things like that.

It's a lot of money and that is one other thing is that they don't have a specifically super well-known online casino brand.

Yeah.

Well, Ryan, thank you so much for coming on.

I don't think the rollout is until November and so we'll have to have you back on to talk about it.

Maybe a month into the rollout, see how it plays out once we start getting that state level data.

But thank you so much.

This was an awesome segment.

We are so happy to have you on as our first external guest and hopefully our first reoccurring guest in November when it all plays out.

Yeah, thanks, guys, to be happy to.

Thank you.

Okay, Sam, let's switch up topics completely different space.

Let's go all in on AI and contrails.

Can you give us the background here?

It's a funky naming topic, but you obviously have a story to it and can elaborate more.

Yeah.

So this was a paper put out or blog post from Google Research last week on contrails.

And so contrails are just short for condensation trails.

This is the white streaks you see behind planes.

There is the conspiracy theorists out there saying these are actually chemtrails.

It's bad chemicals for you, whatever.

It's really just water.

But growing up, I was always told, oh, it's just water.

It's not harmful, ignore it.

But it actually turns out that the contrails, they stay up in the sky.

They can turn into clouds and they actually contribute to roughly 35% of aviation's global warming impact.

So it's this huge amount of impact from these clouds.

And they form only when flying through humid areas.

And so what Google did with the AI was they trained it to spot when these humid areas would form and at what altitudes.

And so that was really the big problem before is it's hard to predict when they will occur.

We don't really measure that.

So they did this with an algorithm.

And they actually put it into use to test it out.

So if rerouting flights to maybe fly a little lower, a little higher, to avoid creating these contrails.

And so they partnered with American Airlines, I believe.

Yep.

So they flew 70 test flights in six months, found that alternate routes reduced contrails by 54% while only increasing fuel consumption by about 2%.

And they ran their simulations.

They said, if we kept doing this and we did it at scale and we really targeted contrails that were occurring at night, which have a bigger impact, we could do this with only increasing fuel consumption by 0.3%.

And so all in the cost of carbon avoidance here equivalent would be in the $5 to $25 range.

It would make it one of the most cost effective climate solutions.

And in theory, it's not a huge upfront investment, right?

You're just rerouting planes.

You don't need to install like crazy new hardware to get it done.

So this is an interesting use of application for AI and climate that I think kind of went overlooked in broader media coverage there.

I have one question for you.

You mentioned that, okay, so there was this reduction in the amount of pollution that they were contributing, but there was also an increase in...

Not pollution.

Global warming impact.

Global warming impact.

Okay.

Yeah, yeah.

I swapped those out.

I'm wrong for doing that.

But my question is, okay, so you have this reduction, but then there was also, I think of what, a 2% increase in the amount of fuel burned?

Was the AI optimized just to reduce that global warming impact?

Or was it also optimized to save on fuel costs as well?

Because I'm sure there's probably some middle ground that they can achieve so that the fuel costs isn't skyrocketing as you're lowering your contribution to global warming impact.

Yeah.

And that ties into the 0.3% number at the end.

So this initial one was, I think, just optimized to see if the initial algorithm and rerouting to avoid contrails would work.

But then what they were saying...
So essentially, it's like, here's Earth and you got the sun here, then it's like the side where it's night is in theory cooling, you're releasing a lot of heat.
But if you have a plane fly here and it creates a cloud, essentially, then you're trapping all this heat and it's bouncing off this cloud.
Whereas if you have a contrail here and the sun's here, it's still trapping in heat, but the cloud's also reflecting some sunlight away.
And so contrails at night are much worse as far as impact to global warming.
So they were saying, at scale, if we really targeted this, we could have minimal increase in fuel while reducing contrails a similar amount or contrails that would impact global warming more.
Even with that 2%, I think they were saying this is still very net positive as far as global warming impact.
But then at the end of the day, you get to this question of it's $5 to $25 per CO2 equivalent abatement.
And the question is, who's paying that?
You and I don't want to pay increased flight costs to avoid contrails.
Probably the average consumer doesn't.
Is this taxed in some way where you take this and you make it a, I don't know, the question is, how do you actually implement this if it's an added cost, even if it's a low cost?
Right.
Well, maybe the government steps in and subsidizes this or I think create some type of carbon offset tax credit that I think car companies swap around.
That's how it's been rolled out with incentivizing the transition to electric vehicles.
So maybe there's something that the government can do to subsidize the move and have airlines adopt this.
Or maybe that's already, I haven't looked into what they are doing to try to offset the impact they have on the global warming scene.
So Nick, we ended under 20 minutes as you requested.
Nice and early.
We'll see if the people like it, if those last 10 minutes were really what was preventing everyone from getting to the end.
And so, you know, for a code word for next week, Nick, what is your favorite summertime activity?
Running.
There you have it.
That's my favorite outdoor activity, just general.
Just generally.
Well, I'm terrified of the ocean.
I'm not going in the ocean.
I'm not swimming with sharks.
That's not happening.
So, you know, I stick to dry land.

I like to run.

There you go.

You just got to watch out for the alligators.

And then I think there was one question this past week that used code word cookies and cream, Sam's favorite ice cream.

It was a long one around Bitcoin.

I think we'll point you towards all of the great Bitcoin content the team has put out, whether it's the Bitcoin monthly or the Bitcoin brainstorm that was also, I believe, released last week.

I would recommend checking those out.

I'm sure you can find the answer in those.

And it would be much better than Sam and I trying to to answer your question because I think our Bitcoin team, our crypto team does a great job giving all the information they have out to the public with the Bitcoin monthly and the other publications we have.

So I will point you there and we look forward to your questions again this week.

And thank you for joining.

That's our show.

See you next week.