

# Why the LEGO® Group makes games for Pre-K children

The LEGO Group believes deeply that the power of play can empower children to become creative, engaged, lifelong learners. And that philosophy is integral to how its video games – especially those aimed at such a young audience – are created.

"Over time, we have seen that children of all ages are more and more present on digital platforms," said Thomas Grüner, who is the senior product lead at LEGO Games for the seven and under category. "And for us as a brand, it makes sense for us to be present where the kids are. And then, of course, what is important for us is that we are there with something that is close to our brand values."

The LEGO Group's foundational mission is to inspire and develop the builders of tomorrow and while that has long molded its approach to toys and physical play, it's also a guiding principle for digital play and video games.



While the LEGO Group has been making or publishing video games for more than 25 years, games designed for preschoolers have a much shorter history. One of the company's first attempts was DUPLO Circus, but that 1999 game was mothballed. It wasn't until about a decade later that the LEGO Group started releasing some early preschool games.

Grüner said it started with LEGO.com and flash games.

"Back in those days, it was very much experimental," he said. "Then probably 10 years or so ago, all the different platforms, apps, and learning games came into focus."

Among the first standalone games created by the LEGO Group for preschool children was LEGO Juniors Create & Cruise. It launched as LEGO App4+ 2012 and went on to be downloaded 200 million times and host more than 5 billion sessions.

Developer Funday Factory was brought in early to help update the game and extend its life, said Funday Factory CEO Kristian Nørgaard. The company decided to focus its energies on converting the game into a 3D experience and building out a robust minifig. They also weighed the importance of not just providing a fun and educational experience for preschoolers, but also winning over their parents.

"When working with both preschool and also kids as a target group, we think of context," he said. "And when you think of context, parents are always a huge part of that."

Grüner said the LEGO Group hosted frequent playtesting sessions to weigh the game experience against the reaction of the preschoolers and the parents concerned about its impact.

LEGO Juniors Create & Cruise got regular updates for nearly seven years as brought in a massive audience of children.

But the LEGO Juniors product range, which were construction toys created to bridge the gap between the larger DUPLO bricks and the traditional LEGO System, was shuttered in 2018. The game followed soon after.

As LEGO Juniors Create & Cruise wound down, a new preschool game was in development, preparing to become the next big game for young children.

LEGO DUPLO World launched in October 2019, and it continues to thrive.

It's the product of StoryToys, a studio that made a name for itself as a developer of popular children's games, including one based on the award-winning picture book *The Very Hungry Caterpillar* by Eric Carle.

Emmet O'Neill, CEO of StoryToys, said the LEGO Group emailed his studio when it was looking to reinvigorate the games line in the preschool space.

StoryToys put together a polished prototype as well as a deep dive into the studio's approach to video games, child education, and development.

"Fundamentally, children are learning all of the time," said O'Neill. "So how do you control and influence that kid so that what they are learning is positive, rather than negative? How do you make that child's experience be a positive and fun experience that allows the child to build and grow? That that's at the heart of it. That's the starting point."

The LEGO Group was impressed with the prototype and the company's take on preschool video games, so they reached back out to StoryToys about putting a contract together.

The StoryToys team designed DUPLO World to evolve after it was launched, with support for a wide variety of environments and different play patterns.

Ultimately, the game provided a free experience that included a number of core levels, but with the ability to purchase future levels at a set price. Those levels were priced separately, but the team recently added a DUPLO World subscription as well, which gives players all the levels for one annual price.

Nearly two years after its release, O'Neill said DUPLO World is the best thing the team has ever made. But the reaction? Well, at first it was very quiet.

"We've made a lot of really good apps," O'Neill said. "But I was really, really proud of this. We kind of poured our hearts and souls into it. And it came out, and nothing happened. Nobody downloaded it. And none of the kind of big review sites picked up on it. And it received very muted featuring from the app stores.

"I have to say, I think I probably came as close to leaving the app space as I have in a 10-year period. I was really, really disillusioned and upset."

But then it started to slowly build up steam and soon it was topping 10 million downloads. Now it's at about 20 million and going strong.

Over the past decade, the LEGO Group and the developers who work with them have learned a lot about how to create engaging, educational, screen-based experiences for children.

"I hope that we help to positively influence the kids of tomorrow," O'Neill said. "I hope the kids, whether they remember playing with our apps or not, are maybe a little bit smarter and a little bit kinder than they may have been, had they been exposed to different content."

Explore more...

In order of appearance:

[Essential Facts about the Video Game Industry](#) – ESA

[Learning Through Play](#) – ESA

[LEGO DUPLO](#) – Official website

[LEGO Juniors](#) - Wikipedia

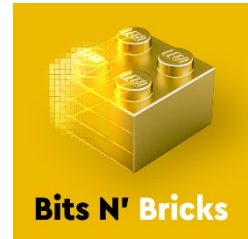
[LEGO Juniors Create & Cruise](#) - Official website

[LEGO DUPLO World](#) - Official website

# Transcript

Bits N' Bricks Season 3 Episode 36: DUPLO® World, Create & Cruise, and LEGO® Games for Pre-K

October, 6 2021 • 42:23



## Prologue – 00:00

**Announcer**

Please note that this episode of Bits N' Bricks contains instances of misuse of the LEGO trademark, which must always be used as an adjective and never a noun. As a reminder, it is never appropriate to refer to the company that designs and produces LEGO brand products as LEGO. Rather, the correct name for the company overall is the LEGO Group.

**Announcer**

I hope that was severe enough. Was it severe enough?

**Studio Engineer**

Yeah, that was great, Ben. We got it.

**Announcer**

Alright. On with the show.

(Child's voice announcing Bits N' Bricks)

## Bits N' Bricks: Introduction – 00:39

**Ethan Vincent**

Welcome to Bits N' Bricks, a podcast about all things LEGO Games. I'm Ethan Vincent.

**Brian Crecente**

And I'm Brian Crecente. Together, we look back at the rich 25-year history of LEGO Games, chat with early developers and seasoned studios, who have all tackled the creation of video games for one of the most popular and respected toy companies in the world – the LEGO Group.

(Bits N' Bricks Season 3 theme music plays)

**Brian Crecente**

Hey, Ethan. How's it going?

**Ethan Vincent**

Good morning, Brian. It's going great.

**Brian Crecente**

So I'm curious. I know you have kids, obviously. I have a child.

**Ethan Vincent**

Yes.

**Brian Crecente**

What is your take on children and video games? Like, at what age do you think it's OK for a kid to start playing a video game?

**Ethan Vincent**

Wow, that's a big question, Brian, it's one to really start the day, you know.

**Brian Crecente**

Who needs coffee?

**Ethan Vincent**

Yeah, exactly. Whoa. Let me just kind of from the hip tell you what I think. No, I mean, it's a huge topic, and I've seen that in my kids that there's just this affinity to do anything on a screen. And then, you know, if it's colorful and has sounds, and it does things, they're sold, you know, it's a pretty easy target, but, you know, kids do love those screens, and, you know, parents being on those screens sure, you know, lures them in, I would say.

**Brian Crecente**

Yeah, you know, I personally let Tristan, he's now 20, but I let him start pretty early playing games, but I still have sort of mixed feelings about when it is that, you know, when it is it's OK. What's the right time?

**Ethan Vincent**

Yeah, I'm glad that you let Tristan play now though, it'd be weird if he was 20 and you kept, you know –

**Brian Crecente**

– No games for you!

**Ethan Vincent**

Yeah, no games for you. Exactly.

## Chapter 1: Philosophy of Play – 02:36

**Brian Crecente**

Well, so another thing I find interesting is that, you know, there are these studies that come out every year and stats, and the average age of a person who plays video games today is getting older and older. But, they still have, in terms of sort of studies and psychologists and doctors, there really still isn't a fixed number, or I think even a fixed idea on when it is a child should start playing video games. It's something that continues to be debated. There are all these studies out there with this conflicting data, so it's hard as a parent to kind of sort through that and make that decision. One thing that seems to have really risen to the top though, is that children under two probably shouldn't be playing video games.

**Ethan Vincent**

Yeah. Yeah. I mean, does that mean that children from two to five can play as long as their time is limited?

**Brian Crecente**

Yeah. I mean, that's like – so I did a little research for this episode. I was looking at stuff and yeah, it sounds like they were saying, you know, it's something like, I think it was something like an hour a day. So they're saying two to five is OK. But I think what's really important to remember is that, once you decide that your child is – should be allowed to play video games, or that you're going to allow your child to play video games – it's very clear from all the studies out there that video games can improve learning and social skills. You know, the reality is that video games are, in fact, a powerful tool for education and socialization. And I think that's why the LEGO Group creates video games for preschoolers. And preschoolers, for those of you who aren't aware, would be kids who are, you know, roughly three to five years old.

**Ethan Vincent**

Yeah.

**Brian Crecente**

So, you know, over the years, the LEGO Group has released more than 15 video games developed for children under seven. In fact, one of its most popular mobile games remains a title created for four to seven year olds.

### **Ethan Vincent**

Yeah, and we chatted with Thomas Grüner, who is the senior product lead at LEGO Games for the seven and under category, about the topic of video games and children. At the top of the list of questions we had was why create video games aimed at children who are so young?

### **Thomas Grüner**

That's a good question. Over time, we have seen that children of all ages are more and more present on the digital platforms, and for us as a brand because of that presence of audience, it also makes sense for us to be present where the kids are. And then of course, what is important for us is that we are there with something that is as close to our brand values and everything. We have seen both in internal tests, and partners tell us when they test, that we seek to, at least to extend the physical play or beyond the physical play, and create that possibility. But another thing that we have also seen, and that's from the testing actually, is that when some kids are playing with our apps and games, we have, say, a bit more opportunity to go beyond the physical set. And what kids sometimes do is they basically take what they see, the play scene that they have completed or have been playing, and then they go back to their physical set and play that out. And that's a really interesting thing to be able to inspire back and forth between digital and physical.

(Tune break)

### **Brian Crecente**

It's important to note just how seriously the LEGO Group takes not just traditional child safety, but also how its products can impact a child's growth. The LEGO Group's foundational mission is to inspire and develop the builders of tomorrow. And while that has long molded its approach to toys and physical play, it's also a guiding principle for digital play and video games. Put simply, the LEGO Group believes deeply in the power of play and how it can empower children to become creative, engaged, lifelong learners. And that philosophy is integral to how its video games – especially those aimed at such a young audience – are created.

### **Ethan Vincent**

While the LEGO Group has been making or publishing video games for more than 25 years now, going all the way back to Sega's Fun to Build, games designed for preschoolers have a slightly shorter history. We talked about one of the company's first attempts at a DUPLO game, DUPLO Circus, in our episode about fluid play and the KidPad, but that 1999 game was mothballed. And it wasn't until about a decade later that the LEGO Group started releasing some early preschool games on smartphones.



**Thomas Grüner**

Back in those days, it was very much experimental because there wasn't, you could say, that much knowledge around how these things worked, and how they could perform and everything. Of course, there was some ideas, but it was very experimental than trying to learn from the different opportunities that we wanted to put forward. And then, I would say, probably 10 years or a little bit more ago, all the different platforms of apps and learning games came into focus. And it was still a very experimental approach to this, where we started with a number of DUPLO titles, DUPLO-branded titles, from DUPLO Zoo and DUPLO Food. And some of these, you could say, eventually came into DUPLO Town and DUPLO Train, which were the titles that we have been publishing by ourselves until a couple of years back. So that was for the younger kids, you can say. And then for the little older, we had a product portfolio on the fiscal side called 4+, which was system brick based.

**Ethan Vincent**

And, Thomas noted, at the heart of those experiments and discussions was the overwhelming need to maintain child safety and create experiences that were age appropriate. Today, when the LEGO Group is considering creating a preschool game, there's a process that includes a discussion based on a number of key factors.

**Thomas Grüner**

First and foremost, it's a strategic dialogue internally on what makes sense on the data that we get from the industry and figure out where it makes sense to be. And then eventually we have an open dialogue with partners or potential partners and have a dialogue on that perspective. As we partner with with successful developers or publishers within the different areas of the industry, it's natural for us to have it as a dialogue based on what we know and based on their experience so that we come out with what we believe is the best possible representation.

## **Chapter 2: LEGO Juniors Create & Cruise – 09:08**

**Ethan Vincent**

But the most successful preschool game to date, in fact the most downloaded LEGO Group app in history, actually started out before any of those processes were in place. What would go on to be downloaded more than 200 million times and host more than 5 billion sessions started life as something called LEGO App4+, in January of 2012.

**Brian Crecente**

About a year after LEGO App4+ launched, the LEGO Group returned to the publisher to ask if they could update the title, and according to Kristian Nørgaard, the developer wasn't interested. Kristian, the CEO of Funday Factory, had recently hired a freelance developer

who worked on App4+, so the LEGO Group came to Funday to see if the studio could do the update instead.

**Kristian Nørgaard**

We of course said yes, that we wanted to work with that. And so it felt very natural to dive into working with it as more games as a service approach.

**Brian Crecente**

The studio set about converting the game's flat, 2D-look to a fully rendered 3D world, and then eventually the major update went live along with the new name: LEGO Juniors Create & Cruise.

**Kristian Nørgaard**

It's a game that was created and designed for onboarding preschoolers, like, yeah, 4 to 5-year-olds, to the LEGO brick building experience, if you could say it in that way. There is, like, these three main parts of the game that you start out building your own minifig, and then you build your vehicle or your ride, and then you drive these different surroundings, collecting coins and having fun. Originally, it had a few extra features, but very early on we tested it with kids and the target group and just cut down features to make it more simple and having, like a few, but fun activities. And I think that corresponds very well to also what the target group is defined by these preschoolers. They really like to master and learn stuff that they already know, but they also, when they have learned the rules and have figured out how the game is working, then they also like to start bending the rules and also seeing if they can break some of the rules. And that was actually some of the things that also, during the updates, came in as a part of the progression design of the game.

**Brian Crecente**

Initially, Funday Factory had a blank canvas upon which to update and expand the game. So the team decided to showcase that LEGO brick experience, and in particular, the minifig.

**Kristian Nørgaard**

You can build your own minifig in the beginning of the game. And we somehow succeeded with getting that minifig builder through the different marketing departments. So you can build your own pirate Batman™ with long hair, for example, and a wooden leg –

(Excerpt from the LEGO Juniors Create & Cruise Game,  
LEGO Batman Game Voice: "Yeah Boo-ya")

**Kristian Nørgaard**

– and I think that is perhaps some of the true LEGO DNA, at least from my side, from both playing with LEGO bricks in my childhood, but also with my kids, that you have endless

possibilities of combining both minifigs and of course bricks, to create your own stories and create your own characters and your own narrative around the characters. And again, with respect to the target group, I think this is a very safe but also very fun way to experiment with what minifig you want to create, and what kind of character that would be fun to play with in the game.

#### **Brian Crecente**

The developers also weighed the importance of not just providing a fun and educational experience for preschoolers, but also winning over their parents.

#### **Kristian Nørgaard**

We always when working with both preschool and also kids as a target group, of course, think of context, and when you think of context and parents, it's always a huge part of that context, and also, like friends is also a part of that context, of course. And I think some of the elements here was that it should be easy to show progress also to others, so the child showing that the progress in the game, and what they create themselves in the game, to parents should be easy. We also work with creating sounds in the game that was very recognizable, and when you honk the horn, you can also get the minifig to say this, "Heh heh."

(Excerpt from the LEGO Juniors Create & Cruise Game,  
LEGO Minifig: "Heh-heh")

#### **Kristian Nørgaard**

Which I think some parents really liked, and others probably also started to, I think hate is a strong word (chuckles), but I suspect some parents recognized it pretty easily, let us put it that way. But I think that was also a couple of the interesting takes that at least from us, as a game producer and game creators, was pretty fun to work with.

#### **Ethan Vincent**

Thomas Grüner said that the LEGO Group hosted frequent playtesting sessions to weigh the game experience against the reaction of the preschoolers and the parents concerned about its impact.

#### **Thomas Grüner**

When we do playtests, we have done them both physically and digitally, and our partners as well. Before corona and everything and we had physical playtests, we would often observe kids and how they were interacting and playing with the different type of products, and at the same time, or after at least, somehow we would interview parents. So we would talk to them about you know, what are their interests? What platforms are they on? You know, what's interesting for them from a communication perspective, so that we learn from both the parents and the kids in parallel what works in their perspective. I think

that there are a broad range of parents across all societies and some are more keen to digital experiences than others. And it's never going to be possible to satisfy all parents or all types of parents. But we definitely aim to satisfy as many as possible with something that is safe and age appropriate, and set the bar high on every aspect of this.

(Tune break)

### **Ethan Vincent**

Funday Factory has learned a lot over the years through their playtesting. One of the key learnings early on, Kristian said, is to spend more time observing how the children interact with the game, rather than asking them questions.

### **Kristian Nørgaard**

Observation is the key in how we are playtested. We really like to playtest with different parts of the target group, so having like three or four year olds in playtesting, and also like, 5, 7, 8 year olds in and playtesting to hear how they thought of the game and see how they interact with the user interface, or if they thought it was fun or too challenging, and like how the right balance between challenging and fun, and also mastering the game should be, so observation and observing the kids was a key element in our playtesting. And then we also, during 2013, '15, or '16 or something like that, established a meeting facility within the Funday office where we call grandmother. And the grandmother room was like – it looks probably mostly like a Danish grandmother's room with old furniture and some nice paintings and also some stuffed animals. So I think for most of the kids, they really liked the room because it was cozy and it was nice and it felt like a warm room, and then there was a couple of kids from time-to-time that was really scared about the animals in the room. And when they were – kids scared about the animals, and it was like, it was a bird, and it was also a fox in the beginning, but we threw the fox out because that was too scary. But from time-to-time we really destroyed and ruined the test because the kid was scared of the animals (chuckles) in the room, but often we managed to have a really nice atmosphere of coziness, and like kind of a home feel that we conducted the test in. It was very, very important for us it shouldn't feel like a laboratory or it shouldn't feel like that they were out of their comfort zone, it should be like a nice surroundings. In that setting, we often got a more honest reaction also.

### **Brian Crecente**

LEGO Juniors Create & Cruise got regular updates for nearly seven years as it continued to bring in a massive audience of children.

### **Kristian Nørgaard**

Over time the game evolved with, of course, updating when there was new LEGO Juniors products that needed to be a part of the game and needed to be showcased. And also with the overall, like, visual quality and the juiciness of the game, and also the rewards

relation to the gameplay. I think it was very often centered around the SKUs and the new LEGO Juniors models, but of course also in relation to the visual experience, and also just boring stuff like being compliant with a lot of different devices and having the big reach it had.

#### **Brian Crecente**

Kristian thinks the game's over-the-top popularity was because of a number of factors.

#### **Kristian Nørgaard**

It was a combination of the simplicity and the very focused design process of catching the preschoolers' curiosity and attention. It was a combination of them both having some rules to follow and some elements to master, but when they have mastered those elements, then they could start also bending the rules, and the progression in the game worked actually towards bending the rules. So you start up in a pretty safe setting in quotation with building minifigs as you know them, and also building vehicles as you know them, but during the progression of the game you can slowly build like – then you can build a helicopter, and then you can build some new, a bit more experimenting with minifigs with combinations that are not obvious. And then when you have played the game a lot and progressed a lot, then you can also start making vehicles that actually had LEGO legs instead of set of wheels and so on. So you are rewarded with a lot of creativity when you progress through the game. It is a challenging group, but I think some of the things we did was these short, intensive bursts of fun and also rewarding tasks, and you – in Create & Cruise, they cruise for coins so there's always coins to collect, and it's very short levels where you unlock these rewards on each completion after a level. And I think that that was, with respect to preschoolers' attention span, I think that was a very wise decision to have a very short game loop, but also a game loop where they slowly would go from just making a vehicle drive, to slowly mastering it, and then exploring much more of the LEGO building experience.

#### **Brian Crecente**

The LEGO Juniors product range, which were construction toys created to bridge the gap between the larger DUPLO bricks, and the traditional LEGO system, was shuttered in 2018, which is about when Kristian and his team learned that the game was going to be shut down as well.

#### **Kristian Nørgaard**

Of course retiring the LEGO Juniors product line also meant that the app was – it was pretty obvious to retire the app, or at least give it a very, very good and decent thought about how a possible future life for the app should be.

**Brian Crecente**

Today, some of those children who played LEGO Juniors Create & Cruise when it first launched as preschoolers are likely entering high school, and Kristian says he occasionally hear stories of how much they enjoyed the Funday Factory title.

**Kristian Nørgaard**

I actually hear quite a few, both colleagues and friends and family, talking about their kids played that game a lot in those preschool years. And actually, also some of them still plays it from time to time just to get a little comforting spark from their childhood. And actually, I also just opened it on my iPad, which is quite old, and I hadn't erased for quite a long time and just played it, and I think there was a lot of teenagers out there who has spent quite a few joyful hours in that game. And that's really, really fun also as a game developer to hear those stories from your kids' friends now. That's something that makes you proud.

## **Chapter 3: LEGO DUPLO World – 21:00**

**Ethan Vincent**

LEGO DUPLO World launched in October 2019 and continues to thrive to this day with more than 20 million downloads. It's the product of StoryToys, a studio that made a name for itself as a developer of popular children's games, including one based on the award-winning children's picture book *The Very Hungry Caterpillar* by Eric Carle.

**Emmet O'Neill**

StoryToys started out about 10 years ago ...

**Ethan Vincent**

This is Emmet O'Neill, CEO of StoryToys, speaking.

**Emmet O'Neill**

... and it was in the earlier stages of the App Store. In fact, the company predates the Apple App Store, but we were working on technology that was basically about trying to bridge the gap between reading and between interactivity and play. I only joined the company eight years ago, but they were basically at this for a couple of years before I joined. And yeah, we basically wanted to make content that could, I guess, just allow children to interact with devices. Suddenly, when touchscreens came about, interaction with younger kids became a really, really different thing. I mean, if you think about it, prior to the iPhone and iPad, and all of that sort of thing, a kid interacting with technology was a kid interacting with a mouse, or a controller for a video game system, or something like that, and really, you know, very young kids couldn't do that, whereas suddenly, when touch became the primary means of input, well, you know what, every kid knows how to use their fingers. And actually, as part of a kid's development, developing out their fine motor

skills, all that kind of thing, is really, really important thing. So yeah, suddenly, when touch came out, it enabled the creation of content for kids much, much younger than you could have before. And for me what was really nice about that was it was about making interactive content and educational content instead of just passive viewing content, versus, you know, traditional animation or something like that.

### **Ethan Vincent**

Emmet always wanted to work with the LEGO Group, but he felt they were so big that they were unapproachable for a small company like his. But then one day, an email from the LEGO Group showed up in StoryToys' general mailbox. They were looking to reinvigorate their games line in the preschool space and wanted to talk to the studio. Getting a cold email from a massive company never happens, Emmet said, and he jumped at the opportunity.

### **Emmet O'Neill**

My own children, who are now 21 and 19, grew up playing titles like the LEGO Batman™ titles, the LEGO Star Wars™ titles, you know, all of those incredible TT Games that LEGO Games have made over the years. So I was very aware in the context of watching my own children – and sitting down and playing with them myself – you know, very, very aware of the legacy of games that the LEGO Group had had and, you know, not just the TT titles, but you know, kind of, you know, quirky interactive titles like Life of George, that kind of thing, you know? When you're working in the app space and working in the game space, you keep an eye on what everybody's doing, so yeah, I would say I had pretty strong familiarity with what the LEGO Group were doing in the game space at that time.

(Sounds of an email being sent and received)

### **Ethan Vincent**

The email said that the LEGO Group was looking for new studios to work with, and they had seen StoryToys' Hungry Caterpillar app.

### **Emmet O'Neill**

So because the LEGO Group are so secretive, they wouldn't really quite tell us much about what it was they wanted us to build. So they sent us through one really, really blurry image embedded in a Word document, of an underwater DUPLO set. And that was I know there was a brief, obviously, but it was largely text, there was no kind of supporting visuals except, as I said, for this heavily watermarked, really blurry image, and they basically said, "We'd like you to create a play experience based around this upcoming set, unannounced, unreleased, so we can't share any more details with you, but, you know, please figure it out and send us back a prototype within six weeks." Now, to be fair, it was a more reasonable ask than that, and of course, there was opportunities for questions and what have you. But it was a – it was really interesting because basically we had to make an experience based

off this image. We were enthusiastic about it. We really, really wanted to work with the LEGO Group, so we threw our all into making the best interactive experience that we could in a six week period. And honestly, you know, like, we did a pretty good job, like, I mean, their expectation was – so usually in video games you might produce wireframes, or prototypes, or something that was primitive 3D objects that kind of gets your point across. That's usually the early stage prototyping. We didn't want to do that. We wanted to actually get to the point of having something that looked like, at the end of a six week process, a releasable game, which was, you know, that was the challenge we set ourselves, certainly the LEGO Group didn't come to us with, and give us any such unreasonable demands, but we basically, we wanted to create something that was finished, polished, and honestly, ready to ship. Yeah, it was an intense six weeks, but I think by the end of it we actually had a pretty good product back to them, you know?

### **Brian Crecente**

Along with the polished prototype, StoryToys also sent a deep dive into the studio's approach to video games, child education, and development.

### **Emmet O'Neill**

You know, fundamentally, children are learning all of the time. So whether you have a kid sitting by themselves with no toys in a room observing the world around them, or whether you have a kid sitting in a buggy on a busy street, the kid's learning about things around them all of the time. So, how do you make that child's experience be a positive and fun experience that allows the child to build and grow? At the heart of it, that's the starting point, but then, with each section within each app, we would have specific learning goals. Say, in a DUPLO context, it's really about discovery, it's about the child's exploring and learning and finding things out themselves. If you can put the tools in front of a child for them to discover something themselves and feel proud of that discovery, versus, spoon-feeding content or having, you know, overly prescribed content, that's a real win for me. So in the context of LEGO DUPLO World, we really wanted to just enable an analogous play experience, something that felt to the kid like their DUPLO bricks had just come to life.

### **Brian Crecente**

The LEGO Group was impressed with the prototype and the company's take on preschool video games, so they reached back out to StoryToys about putting a contract together – but there was an unexpected hurdle.

### **Emmet O'Neill**

So the LEGO Group said to us, "this is going to be a work-for-hire project." And I said, "Well, we don't do it, but you know, you are the LEGO Group, so in this context, yeah, absolutely, we'll consider it. However, what we would like to do is start a very low key, exploratory engagement initially, and during the course of our conversations, we would like this not to be a work-for-hire engagement. We'd like this to be a licensing engagement."



So basically, what I put to them was at any stage during the journey, they could stop paying us. And the fundamental difference would be that we would publish the app rather than the app being published under LEGO Games or the LEGO Group's profile. So that was initially, I think, met with some skepticism, but basically, we kept the contracting very, very light initially, on the basis that we hadn't really agreed those sort of those broader terms and broader parameters for moving forward. But, you know, during the course of development, and during the course of discussions and many conversations – both in-person and remotely – we eventually reached a point of agreement where the LEGO Group felt that the best way of this app moving forward is for you guys to publish it on an ongoing basis.

### **Brian Crecente**

With the contract locked down, StoryToys started development on DUPLO World using its particular philosophical approach to educational games.

### **Emmet O'Neill**

My goal is always: How does the app work? The app works however the kid thinks it should work. If a child chooses to tap where they want something to interact, you know, that should work. If a child chooses to drag, that should work. If a child chooses to mash their face against the screen, something should happen. So that was kind of one of the really key underlying philosophies in the early design stage. So, what we really had to try and figure out was: How can we make these characters and bricks work in such a way that it's completely fluid – that it just works by itself, almost? So we made prototypes. We made lots and lots and lots of prototypes. Whether it was just a character walking across the screen, or whether it was how you put two bricks together, every single component, we build these tiny, little micro prototypes. At the time, we were able to gather large groups of children and parents to play with these things, so we'd set up these test areas where we'd have lots of physical DUPLO product in hand, because it was really useful for us to observe kids playing, but then we would also give them little prototypes, and as I said, that could be as simple as one little DUPLO figure in a void. And you know, what happens when they tap it? What happens when they pick him up and drop them on his butt? What happens when they tap him multiple times? What happens when they drag him from point to point? And, you know, we got the characters pretty quickly, the characters and animals, and we found like kids were playing with them for sort of eight minutes at a time. Now, our goal had been that they'd play with them for more like 80 seconds, because there wasn't much in them. You know, so once we'd hit those kind of play time metrics, and most importantly, the kids were laughing, kids were calling their moms and dads over and saying, "Hey, look what I just did," and you know, once a component was doing that, we knew that component was ready to go into product. So, the characters were easy, but then when it came to bricks, and how bricks click together, and how you build things, that proved to be much more complicated. We wanted people to be able to deconstruct the backgrounds, to be able to pull bricks out, to be able to bring things from scene to scene. We had all these really crazy, three dimensional building goals and really lofty ambitions.

And we built them, you know? We built prototypes to demonstrate these things, but as soon as, of course, we put them in the hands of three year olds, either they were massively confused by what they were doing, or they couldn't use it, or they ignored all of this "cool in a 40-year-old's head" functionality that we thought that they might like. So, we had our setbacks where we would build and prototype, and find actually our hypothesis of play. And each prototype would be exactly that hypothesis of play. And sometimes we, you know, we'd get it very, very badly wrong.

### **Ethan Vincent**

The StoryToys team designed DUPLO World to evolve after it was launched with support for a wide variety of environments and different play patterns.

### **Emmet O'Neill**

We wanted there to be something for the kid who loved animals. We wanted there to be something for the kid who loved vehicles. We wanted there to be something for a kid looking for rescue adventures, like a firemen, that kind of thing. So, once we'd put together our core interactive components, we started thinking about, "OK, how do we pull these into play sets?" Sets that didn't necessarily mirror the boxed DUPLO sets as they came up, but were kind of inspired by. So rather than taking a specific box, we might take a theme, for example, a world animal's theme or something like that, and use all of the sets related to that, and even back catalogue LEGO sets that were no longer available, we just wanted to use all the bricks. And, you know, this was kind of, I guess, a point of tension a little bit between us and the LEGO DUPLO team, because for me, the magic of playing with LEGO bricks is that you can dump all of those bricks out onto the floor, and you probably have some from some sets, you have some from other sets. You have some that used to belong to, you know, your cousin who's now 50 or whatever, you know, like you - like, it doesn't matter how old the bricks are, they still work together, so everybody's sets tend to be a jumble of all sorts. I wanted some level of that within the apps too.

### **Ethan Vincent**

Ultimately, the game provided a free experience that included a number of core levels but with the ability to purchase future levels at a set price. Those levels were priced separately, but the team recently added a DUPLO World subscription as well, which gives players all the levels for one annual price.

### **Emmet O'Neill**

We stuck with the in-app purchase content, but we continued to introduce new content over the last two years. We've continued to do so. So, we found one challenge, in that, every LEGO DUPLO app previously released had been free, with no in-app purchases. So there was definitely a little bit of a behavioral shift for customers. So, the first challenge was to get parents to accept that this costs money to make, it cost a lot of money to make, and to be done in a sustainable way on an ongoing basis to produce the best possible content,

we need to be able to monetize that. However, the very reason being customer-satisfaction and to avoid customer complaints, the very reason we'd stuck to in-app purchases in the first place, turned out to be sort of negative in some ways, because parents were buying items, and then we were releasing new items. So we wound up getting some negative customer reviews saying, "Hang on, I already bought content. Now there's new content, and I have to buy this new content. That doesn't make any sense." The expectation was, once they had made a purchase, that they would get all content forever for free, which again, that's a very difficult business model for us to work with in terms of our costs on producing new content are ongoing. So, ultimately, just in August, we introduced subscription as a choice. So a user can buy the content if they want to, or they can subscribe to the content if they want to. But we've now, we just felt the best thing to do ultimately, was to offer the user that choice.

### **Brian Crecente**

Nearly two years after its release, Emmet says DUPLO World is the best thing the team has ever made. But the reaction? Well, at first it was very quiet.

### **Emmet O'Neill**

We've made a lot of really good apps but I was really, really proud of this. We kind of poured our hearts and souls into it. And, it came out. And nothing happened. Nobody downloaded it. None of the kind of big review sites picked up on it. It received very muted featuring from the app stores, and when you're trying to get something off the ground and then suddenly, it's just like nothing happens and there's no reaction. I, yeah, I have to say I think I probably came as close to leaving the app space as I have in a 10-year period. I was really, really disillusioned and upset and, but slowly, over the course of time, people started downloading it, people started reviewing it, and people realized, you know what? This is a really good app. This is a really positive play experience. It's nicely done, the interaction's good, the learning is solid. And so, we slowly, over the course of sort of five or six weeks, maybe even two months, slowly started to pick up customers, started to get some positive reviews, and that was kind of just in place in time for Christmas and the holiday season. And that's when it really, really started to take off. But, you know, before I talk about any level of success of the app, I think it's really important to point out when it launched it actually was probably our worst launch ever. I mean, it was desperate, you know?

(Tune break)

## Chapter 4: Conclusion – 37:17

### Brian Crecente

Since that rather flat launch, the game has gone on to win numerous awards, including the prestigious Kid's Prize at the Consumer Electronics Show. Emmet said it hit its first 10 million downloads within the first year, and is now already top 20 million and continues to thrive.

### Ethan Vincent

Over the course of the past decade, the LEGO Group and the developers who work with them have learned a lot about how to create engaging, educational, screen-based experiences for children. And everyone involved continues to follow the discussion surrounding children and screen time.

### Thomas Grüner

It's an interesting topic because it's also something that we follow –

### Ethan Vincent

This is Thomas Grüner speaking.

### Thomas Grüner

– whether it's in the media or through different authorities. I think that what we try to acknowledge is the fact that much like, I would say, nutrition (chuckles), you need a diet that is varied, that basically gives you different types of nutritions, I would say. And so with that way we definitely acknowledge that it's not healthy for anyone to sit in front of the screen all the time, but when they do, and when their parents accepts it, we of course prefer that it's a LEGO-branded title that they consume.

### Ethan Vincent

While the LEGO Group published more than a dozen preschool games. LEGO Juniors Create & Cruise, and DUPLO World serve as both testaments to the power of children's titles, and as clear indicators of how the company's approach has evolved. Kristian notes that the games have also helped introduce a lot of children to LEGO toys.

### Kristian Nørgaard

I think in that perspective it has had a huge effect, and again, with plus 5 billion sessions, the reach has been enormous. Of course, also being one of the first apps ever from the LEGO Group, and if I recall right, the first app that the LEGO Group updated, introducing games as a service and working with software as a service, also was a part of that development from 2012 and onwards. And the LEGO Group today, is of course, a much more software-driven company like a software as a service, and games as a service, and

apps as a service as a part of, perhaps not their DNA, but as a very part of the operational models, as I understand it. The reason to make games aimed at preschoolers is, of course, to help and nourish them in some of the things that is already going on, both in their lives, and in their minds. I also think that during those years from that the game was alive that a lot of thing has happened, and a lot of other great companies also and push the bar in relation to how to create games for preschoolers that helps them develop some of their more, like, both social and cognitive skills.

### **Brian Crecente**

Emmet says that he's reminded of the lasting impact these games have on the children who played them as they grow up. Just recently, he found his son, who's now 21, at the kitchen table drinking a beer, and to his surprise, playing an online game from his childhood with his buddies.

### **Emmet O'Neill**

You know, I suppose sometimes I wonder, like, whatever about the lasting impact on the person, if nothing else, maybe there's like a level of nostalgia to looking back on these things at a future date as I witnessed him and his friends doing. I do think that, you know, on my better days, I hope that we help to positively influence the kids of tomorrow – that the kids, whether they remember playing with our apps or not are maybe a little bit smarter and a little bit kinder than they may have been had they been exposed to different content.

(Postscript music)

## **Bits N' Bricks: Credits – 41:11**

### **Ethan Vincent**

Bits N' Bricks is made possible by LEGO Games. Your hosts are Brian Crecente and Ethan Vincent. Producing by Dave Tach. Our executive producer is Ronny Scherer. Creative direction and editing by Ethan Vincent. Research and writing by Brian Crecente. Art direction by Nannan Li. Graphics and animations by Manuel Lindinger and Andreas Holzinger. Mixing and sound design by Dan Carlisle. Disclaimer voice is Ben Unguren. Opening's child voice is Milo Vincent. Music by Peter Priemer, [foundermusic.com](http://foundermusic.com), and excerpts from LEGO DUPLO World and LEGO Juniors Create & Cruise. We'd like to thank our participants: Thomas Grüner, Kristian Nørgaard, and Emmet O'Neill. We'd also like to thank the entire LEGO Games' team. For questions and comments write us at [bitsnbricks@LEGO.com](mailto:bitsnbricks@LEGO.com). That bits, the letter N, then [bricks@LEGO.com](mailto:bricks@LEGO.com). And as always, stay tuned for more episodes of Bits N' Bricks.

LEGO, the LEGO logo, the Brick and Knob configurations, and the Minifigure are trademarks of the LEGO Group. © 2021 The LEGO Group.

All other trademarks and copyrights are the property of their respective owners. All rights reserved.