

Ukulele Music

Keith: Welcome to the LeeCoSchools Edcast #27 with our second repeat guest, Thomas Ashbaugh. We spoke with Thomas last year so he could tell us about his brainchild "Read2Mine". Since then, he has been working on it a lot and I wanted him to come back on and give us an update. I would say more, but I'd rather you kept listening instead. So, after listening to this, if you have any questions, comments, complaints, criticisms, compliments, colloquialisms, conundrums, or concerns, you can find us on the web at www.lee.k12.al.us/EdCast, on Twitter and Instagram @LeeCoSchools, on Facebook at facebook.com/leecoschools, and we have our own icon on the Lee County App which you can find in Google Play or whatever Apple has now. Finally, you can email us at edcast@lee.k12.al.us I want to give a shoutout to my former co-host and producer from the beginning, Mr. Kyle Christian. Thanks, bud, for making me sound smarter than I am. Without further ado....Allons-y!

Funky Transition Music

Keith: Thomas thanks for coming back to the podcast just to remind everybody who may not have listened to last year's episode give us a quick little recap of who you are and your your professional journey and how you got here and then tell us a little bit about the genesis of Read to mine

Thomas: thanks for having me back I'm Thomas Ashbaugh in the network engineer for Lee County Schools I've been here about nine years now enjoyed every bit of it and last year we worked with a system that I had found called mine test it's just a game engine you download mine test and you can build your own game with it it looks like Minecraft so I've been developing a game that we've called read 2 mine and our students have engaged in it last year and we've seen some beneficial increase in reading performance through accelerated reader points

Keith: and so you came up with the idea of it because of these all these phone app games and the things that they do - yes get people to constantly get into it and so you decided to turn that - good mm-hmm by instead of because all these little galleries little game to pay to play don't

Thomas: they make you jump through all kinds of hoops yeah though they'll make you watch ads download and install other games and play to level five on those games and I've seen my kids do that just to get a few coins and digital currency in this game that they actually like to play

Keith: yeah so frankly I'm getting tired of ads invading every single aspect of my life I'm expecting ads to be beamed into my dreams in the next decade or so that's funny but anyways you decided to take this thing but turn it to good

Thomas: yes I've noticed that kids will do above and beyond just to get digital items that aren't really real they don't cost us anything to make them other than a few minutes of our time so I made a system where we can implement digital items every few weeks to keep them incentivized to want to read another book to buy some more cool content whereas on the mobile industry they make you spend \$5 year \$2 there to have more coins or watch an ad well in this case the students will do what they're supposed to be doing anyway read a book take an ar test but now they can spin those points instead of the points just sitting out there and one kid at the end of the year getting a trophy now all the kids can see a benefit from their hard work of reading books

Keith: yeah so this past year was the first full year of the program running right yes and so what kind of improvement did we see in numbers with read to mine as an incentive

Thomas: I was watching pretty closely the by-school number of ar points and then comparing it to last year's data per ar points and since different schools have different numbers of students I went ahead and just made an average of the average ar points per student for the for the school year compared to last year at that point in the year last year and at the end of the year I've got the total and we saw a 60% increase in ar points per student for all of the elementary student only this elementary just all the elementary schools we've got a 60% increase in ar

points per student which is pretty good that's incredible yeah what we're see is when that state report card comes out all of our schools we've been told you know about numerous studies that reading improves cognitive behavior improves your test-taking skills so we want to see all of our schools go up we want to see their reading and global scholar go up because all of our students you know put in a lot more time reading this year than they did last year which should by all accounts and all the studies make everything look better on all of our school report cards yeah so when that comes out I'd be excited to see those numbers

Keith: yeah but that's it that is a dramatic increase in the number of points per student on average

Thomas: yes well some schools will use the system pretty heavily yeah and some schools picked it up towards the middle of the year and some schools didn't use it as heavily you know there were a few schools that had 117 percent increase 136 percent increase 84 percent increase the most the top 3 schools there ar points per student over doubled yeah from the previous year

Keith: and we even that some of the students even kind of were able to pressure a couple of the last holdouts to finally pick up the system exactly yes the middle of the year right

Thomas: by Christmas time we had every elementary school using Read2Mine that's awesome and their points and improved some of that may be attributed to the fact that we were rating all the schools we're making a air of competition and that competition also helps oh let's do better than this other school next door you know so I feel like competitiveness could be an improvement as well

Keith: nothing wrong with friendly competition

Thomas: yes absolutely a motivator

Keith: now if we can get the principals to really buy into it and maybe figure out some way to encourage their students to be the number one in the county yes and and get that to if we can get it I don't say a fever pitch but if we can if we can increase the the fun and the competitiveness around it I mean competitive reading how amazing would that be yeah so I think I think that would be that's down the line but I think it's coming

Thomas: I'm working on a scoreboard idea either in the game or on the computer desktop backgrounds something though that will show up the live rankings of each school or maybe maybe just each grade level something like that some form or fashion of way to to promote a little bit of competition mm-hmm because that's a big motivator more than the in-game content could be digitally yeah but the in-game content is pretty fun we

Keith: tell us about some of the improvements that you made you've been working on it off and on but we wanted to very heavily for over the over the course of this past year so what are some of the new things new content new ideas that are already implemented and then what's what some of the stuff was coming down the pike still

Thomas: well we started out with just one server and if that server locked up or crashed everyone we kicked out until until I got it fixed we've since split that off into about four servers now all the students were in fact in one server begin with but we found that if a whole lab at one school and another school got on at the same time it made it a little bit slower it was laggy as the students would say yeah we fixed that by pairing the schools off two schools do to each server just about and that means we can have about four times as many players on line at once and it's before we did that right up into the school year just before the end of school rush when there was some free days towards end of the year and everyone was online at the same time so that that made the end of the school go pretty smoothly this year but before that I'm writing all this code myself and I'm not a video game designer I'm not a programmer I'm a network administrator so there were some some learning curves for me when it came to designing a system that worked fine in test environment but when I implemented it for 30 people online at one time then the bugs creep their little heads out

Keith: yeah but I mean every game designer has that yes we get infinite patches until the game dies or the heat death of the universe one of the two so from from what I have observed there are some games that I've played before that basically were unplayable day one because of patches that needed to be downloaded and put in so don't beat yourself up on that even you've done from what I observed it's it's been pretty pretty successful

Thomas: yep and we're continuing to add new areas for the students to explore I found that not just adding things on the wall that they can buy like a new refrigerator or a stove for their minecraft house that they found that fun but for the most part they they tend to ignore that that type of new content they love to explore new areas so I've been having my daughter design new houses and in new areas at Christmastime and released the winter wonderland holiday area that they could go to and it was all candies and and snow and gingerbread houses giant Christmas tree yes yes and so so that was fun for them to go explore that then we had reindeer and whatnot and around spring break time and released the tropical paradise area for them they're exploring with new houses and they could buy like beach houses yeah instead of just a regular old minecraft style houses and they may

Keith: didn't you have a golden kayak or something like it

Thomas: there's a kayak we added a new boat lots of new tropical content lots of flowers and just decor items mmm that one of the more popular items was the kitty cat it was just a statue of a kitty cat but the kids loved that

Keith: it's the Internet kids love the Internet just loves cats so that makes sense

Thomas: exactly and the tropical shirts they could wear on their characters just costumes and but besides all the new content areas we're going to be making more here soon in the form of minigames some of the complaints I've seen the students they were bored or they didn't have enough time to play so we've got the play from home client ready making installed on the internet ready computer at home that the software can roll them any old laptop I mean just a 10 year old laptop pull it out of the garage plug it up get it charged up and download the game it'll run on any old computer it doesn't require an expensive gaming computer just any Windows PC or Mac if you can get a Mac client will work to run the game from home as long as you have internet access so

Keith: now has that been available to them this summer or no

Thomas: we started in the last few weeks of school and we had a few students log in and try it out but it didn't become heavily popular I'm thinking next year I'll have it has it more aggressively and students may try to use it we charge them reward points one reward point is worth one minute of gameplay during school we don't give them many reward points because we don't want this to be a game that is detrimental to their education we don't want this to take up their school time when they should be on MobyMax or something else right so they only get a few minutes a week play somewhere between 25 and 40 depending on how well-behaved they are if they've been written up if they've made all A's or all F's you lose your award points as a punishment or you gain them as a privilege and you have not had any unexcused absences that sort of thing so we're charging them to reward points to sign in from home once you've signed in from home you're okay you're not gonna be charged per minute is what I mean by okay so you can play all afternoon to the sheriff's server shuts down for bedtime at night let them play up too late that being said we're hoping to make it more entertaining because they can play it outside of school time but they only have limited numbers of sign ins so they can still focus on reading at home instead yeah but due to some of the complaints that it wasn't fun enough and it's very similar to Minecraft but we've removed the violent items from the game so that it's more in line with what you'd want expect in an elementary school if you were to read a novel that had no conflict climax and resolution it would be not not very entertaining and the games go the same way the game is gonna need a little bit of conflict a little bit of resolution in order to be entertaining so we're going to introduce a little bit of conflict in the form of food fight I've been working real hard on this next minigame that will go alongside me to mine mm-hm and the gist of it is I'm cloning Fortnite a very popular Battle Royale Last Man Standing mmm deal yeah we're gonna do a food fight where they'll throw tomatoes at each other and instead of swords they'll hit each other with bread sticks just silly food items that aren't we're not even going to use health we're gonna call it you know how dirty you are once you're you

cleanliness is all the way down to zero then you're out of the game hey you got lost the food fight mm-hmm and the last man standing wins and will get a trophy to decorate in their read to mine house because the main gist of the game still is going to be a minecraft style clone where you can buy a house and decorate it with the item purchased from reading books but now if you have time you can queue up for a food fight battle your character will be transported to a special server that has different rules where you parachute down and pick your area land loot whatever kind of food items you can find or cook you'll have it set to where you can spend some time cooking some food items to throw at other players and then you run around throwing it at other players as the world falls apart and gets smaller until there's only an arena left and from there you'll have to battle it out until there's one player left and that player will be the winner

Keith: so how many how many players potentially can there be at once in the in this special server

Thomas: I'm gonna try to keep it very fast-paced so the more players you stack in there the slower and laggy gear it gets I'm going to limit it at about 20 players to begin with and we'll see how it goes from there it's not bad yeah it should not be too bad

Keith: about a class size you get like a whole class together and have a little food fight and

Thomas: yep and if players from all over the county can queue into that one because some of the students may not be interested in doing that they may want to build their minecraft house so all of the players from some separate servers will queue up and once enough players are in queue say 5 or 10 they can go ahead and start the game and move them

Keith: is that like the instances in World of Warcraft and stuff like that

Thomas: exactly and I'm moving towards an instance based setup on this every time I say there's a server it's basically another instance it's still all running on the same hardware but I can spin off another instance another exe file executable or nothing and it will process just those players that are in that area so by breaking this huge world as an infinite size block world up into smaller areas I can increase performance because the computer doesn't have to think so hard for a hundred players all at one time though it's just 20 here five there ten there and but by compartmentalizing the the areas like that mhm we get way better performance that can handle many more students online at one time

Keith: that's great now speaking of servers we have some middle schools that are wanted to get in on this

Thomas: yep and we're getting the middle school server ready this summer hmm I've got at least one middle school so far but I'm betting there's gonna be another one we'll reach out to a few principals this summer and see what they want to do with it because we're going to try to promote some more accelerated reader type learning in the seventh and eighth grades as well now okay and additionally to that with the play from home client working we could in theory add the whole district to their own servers and just lock them lock out the high school and middle schools to play from home only hmm and it won't interfere with school time at all in the case and then if they were interested in reading a book and doing an ar test then they could benefit from the program and if not in fact we have a new website that we implemented right at the end of last year and we're gonna be putting out a lot more screenshots a lot more content a lot of the emails that were going out last year we're gonna move all that move the new content move news items what's new all that's gonna be on the website now and we'll link that up on the show notes yeah we'll link that up and we'll maybe put a link on the leak on a site for it too

Keith: okay so right now you need a windows-based machine or you know like you says Mac but we don't have macs really in the county so basically windows-based machine to play the game now all of our students from I think three and a maybe this year going down to grade two and up have Chromebooks some of our schools we're trying to really make it a push to get our schools to one to one where every student will have a device in their hand the entire day so are there any possibilities in the future where Chromebooks will be able to play this game

Thomas: we tested the Chromebooks last year the models that all the students had in their hands and it just wasn't fast enough to handle the game the Chromebook is not a full computer so we were limited yeah yeah we got it running it was very slow it took two to five minutes to even load on the car and by that point the students would have lost interest yeah you're losing class time if they have to spend five minutes to load the game right so it was a note last year but we're refreshing all of those Chromebooks with the latest and greatest model mm-hmm and it's looking like it may be able to handle it this year okay but the client is running an android client that's made for a touchscreen where you're supposed to touch the screen and move around you're not supposed to have a keyboard and mouse so I have to actually compile my own client for Chromebook that plays more like a computer without touchscreen support with a mouse you're gonna want a mouse I'm plugged into that Chromebook if we even do get it working yeah because playing with a trackpad is just too tedious no one will be able to handle that right so you'll need a mouse for sure and it still will be a little bit slower than the PC and maybe even so bad that it may not quite be as fun as all that was on the desktop computer

Keith: but maybe eventually we'll get there

Thomas: eventually we'll get there hopefully we'll keep working on it every year as they release faster and faster Chromebooks closing that gap between the Chromebook and the desktop computer and performance yeah but in the meantime it may be best for one of the two strategies I've seen the teachers use successfully they use this as a motivational tool if you all act good for mister so-and-so while I'm out then when I get back we'll go to the computer lab and we'll do 30 minutes on read2mine after we finish our mobymax that was a successful method where it's used as an incentive to make sure the kids behave and do what they're supposed to do yeah and it's worked out well for teachers using it that way and another way is when teachers have pre-organized with the media specialist to allow the students to come switch out their book once they finished a book they'll go take their AR test in the library pick out a new book and then spend ten or twenty minutes on the read2mine system before their time runs out and have to run back to class that's really cool yep so when the media specialist is in on it and understands and it's okay with the student spending an additional time in the library's lab that that system seems to work pretty good it's a motivator to continue reading

Keith: so we're getting we're getting good buy-in from the teachers and the media specialists some area

Thomas: and some of the after schools use it very heavily oh yeah so that the students after school they day they go to the lab after they finished all their homework and they can sign in then until their parents come pick them up and then when their parents pick them up you can see that those students are reading more hmm by the numbers and it's because they have more access to the game itself they get that motivation to read

Keith: well yeah because it's boring we're sitting there waiting for your parents to come get you and then right now it's you know it's either coldest all get-out or hot as all get-out and you'd write and who wouldn't rather be in the computer lab playing a fun game then sitting outside either sweating or freezing yeah and so I mean I read I read a good bit as a kid anyways but like if I had if I was in one of the situations where I had to sit around waiting for my mom to come get me all the time yeah I'd have been reading books even more voraciously to get those AR points so I would have something to do to keep myself busy

Thomas: and to show off to your friends at the end of the school year we gave out crowns to the top 10% of readers so I'm gonna try to make it this year there were those same students keep get to keep the 2019 school year crown to show off the day I was in the top ten percent last year mm-hmm and then you know this year we'll do something else as a as a cool item

Keith: they're gonna be like those those characters in those movies with the you know the glory days my my high school football jacket you know all those are the day look at this look at this crown those are the days I was reading books every day

Thomas: and I'm gonna be moving to a to my automatic method like that you know if you have a Fitbit you've got your 10,000 steps in it there's fireworks a lot of corporations are finding that they can motivate their employees through digital badges where you didn't miss any days of work in six months you get the badge there's an achievement in video games on your mobile device games will pop up and remind you hey you haven't played in 12 days

Keith: tell me about it I wake up in the morning I have 15 different notifications from the different games that I play

Thomas: and what I've noticed is some of the students last year didn't really read much some of the ones would still login in the game and just play the game with the bare minimum they didn't buy a nice house they didn't buy cool stuff they just ran around and talked to their friends and that's doable but I want to minimize that so they're gonna get notifications in the game you haven't read a book in three weeks you have another day or two quiz in three weeks your character is now 50% slower and can only jump half as high and after six weeks your character is walking you're slow as molasses and there's a ball and chain tied behind your character that you're dragging I'm implementing all that this summer so that there's gonna be motivators for people who are reading and de-motivators yeah in game detrimental things for your character in game that will make it hard to win the food fight if you're twice as slow as everyone else so all you have to do is just read one quick look and take an AR quiz and then then they the debuff goes away you're no longer slow and you have another three weeks before you have to read another book

Keith: now I just want there to be a sad book like a book with the faces crying saying you haven't read me in a long time and I'm feeling lonely

Thomas: we're doing something happy it used to be they had to go to the wall find a smart shop on the wall right click it and click buy emeralds a whole bunch of times and that was really tough for them to figure out how to do it first because there wasn't really any instructions it just they had to play around with it until they figured out and they tell each other and you'd see eventually they figured out that they could buy emeralds with the buy emeralds button then right click the shop on the wall that was real complicated I've done away with all that emeralds are no longer an item you can hold in your inventory it's just a picture at the top of the screen that's built-in in a number beside it you can't drop them or give them to anyone else they're no longer an item they're just a database table with a number associated with it

Keith: kind of like how money is in the real world

Thomas: kind of like money in your bank account instead of being cash in your wallet what what that's going to do is it's going to assign their emeralds as soon as they log in it removes one huge step of work they had to do in order to spend those emeralds as soon as you log in it converts all your AR points directly to emeralds and we changed the rate of that too we had it set last year where kindergartners got six emeralds per day are outputting the sixth graders only got three emeralds per AR point I've changed it to fifty emeralds per AR point for kindergartners because on average most kindergarten did never did in AR test anyway so if a kindergartner eats just one book he's probably gonna be set for the rest of the month in game if they even play it yeah they're just learning to read to begin with an AR isn't used heavily in the kindergarten grades but about first grade I've increased it to about ten emeralds per AR point in the first graders and it still stays at three for sixth grade and up since we got seventh and eighth graders coming in yeah I've looked at the top 10% of AR point earners done the averaging and found out that that average is exactly along along the along that scale so that grading scale works perfectly or it's fair for everyone because the sixth graders are reading books that give them a whole lot more points than the first graders

Keith: automatically given in the emeralds that cuts down on because that was cutting into their actual playing time you're going to go on and cash in so

Thomas: and figure out how that works

Keith: - all right so that cuts in that gives them more time to actually explore and do stuff it's the thought you don't have to do it you can say Keith this is a stupid idea but I think the students who you're early adopters if they got some kind of beta tester recognition that'd be kind of cool like you're a few students who tried the the client from home to play from home

Thomas: yeah you're right I should be like a reward if you played from home I'm going to go to the achievements that we're talking I'm gonna build an achievements page where you've read ten books you've read 20 books you read 30 books congratulations keep up the good work they're gonna get constant motivators like that now you haven't been written up ever great job you've made for a perfect attendance that's nine weeks here's an extra and I'm not giving extra emeralds I'm introducing a in order to make these Atta boys pay off I'm introducing a nother currency called rubies and the rubies are going to be not as a valuable per se the emeralds are still gonna get you all the cool stuff that you normally buy but items that are already in Minecraft that they can just walk outside and dig like dirt or stone or a wooden pickaxe stuff that they can get themselves I'm gonna start selling those for rubies and items that they can only get through reading books are only gonna be available through emeralds hmm so with these two different kinds of currencies emeralds and rubies rubies are going to be used for all kinds of rewards that they'll get those all the time just for having read a book having read 10 books logging in from home once any kind of little little micro transaction type achievement we want to give them they're gonna be given out like candy just as motivators to keep on going

Keith: and so what will they be able to use those rubies for

Thomas: for now I'm looking at making it to where they can use them for some of the character skins for the food fight only some of the rewards from food fight like if you were the winner of the food fight get it I don't want to give them a payout in emeralds because that would you're supposed to get those from reading books right so we don't want people just to play that and never read a book so the good stuff still gonna be coming from reading books but if the character wants some stone to build the house himself and he doesn't want him out all that stone because you know they only get a few minutes a week to play hmm then he can spend his rubies buy a stack of stone and build a house out of that real quick okay so just just in game items that are vanilla and minecraft of style anything you'd see in regular mine we can sell that with rubies mmm bread something their character can eat yeah stuff like that yeah pickaxes then the fancy things that shoot fireballs or make their character look cool like a like a different character skin to make them look like their favorite cartoon character those will cost you emeralds still

Keith: okay that's what we need well Thomas this has been a passion project of yours and I have been excited to see what you do with it and I'm really excited to see what else you come up with but um I mean this is a wonderful thing for our district for our students for sure and just having that kind of a dramatic increase in the points on average I think shows that it's helping to incentivize reading and that's always a good thing

Thomas: yes thank you I've gotten some positive feedback from many of the teachers so I'm saying that the kids love to come to school now they're excited to come to school and they're happy to be a service around the classroom if it means that they can get their time on the read2mine system

Keith: that's great

Thomas: yes and I've heard other positive comments about how students who didn't necessarily enjoy reading in the past have gotten into it now which is the purpose the purpose of this is to promote reading in our schools and eventually I'm going to have educational content built right into the game where it's gonna ask the student you're out of playtime for the week but if you click yes you can be loaded into an activity that will teach you this week spelling words and if some teachers got me a list of all the spelling words for every week of the school year I could put those into the game and the students after having completed a mock spelling test can proceed to earn 20 more minutes of gameplay for the week stuff like that make it educational and again make all of the work be doing automatically by the system because it talks directly inow we don't want to have the teachers do data entry and

add points themselves and manage which q acted up no it's going to take care of it all for the teachers it's something to take work off the teachers not give them more data entry to do

Keith: right now it sounds like you're getting sort of anecdotal evidence that it's also helping with some discipline is that is that true is that maybe that's something that we can maybe that's something to look at for this coming year

Thomas: yes we could definitely look at the reports we were incentivizing these reward points these minutes of gameplay per week based on their discipline if you've been written up you lose like 20 points instead of gaining ten points instead of you're good good reward bonus so you know that's 30 minutes right there you lost just getting rid of that written up that week but hey if there was a suspension involved you'd have lost another 20 points so you can wind up in the negative and have to do in other weeks good behavior before you get to play again it's just the way it's intended that way the teacher doesn't have to argue with the student please miss so-and-so give me some more time I'll be good no it's just that's the way it works we all have to live by these rules and maybe if you behave in a couple of weeks you can get time again there's no need to argue with the students no need to do any of that you know it'll just calculate the points automatically for everyone on a fair basis but moving forward we will be tweaking those a little bit and like I said with the rewards and the achievements in game these these badges just like your Fitbit gives you we're gonna say three weeks with no write-ups good job here's some extra rubies to spend nine weeks perfect attendance good job here's some extra rubies to spend these little motivators tingle the part of our brain and keep us focused on on our goals so we're gonna set goals for the students yeah we're going to reward them when they meet the goals and that should make them happy release oxytocin in their brains and they'll form a pattern of behavior that continues to behave and do good and work hard and read hard

Keith: that's great I'm excited I think this is a great thing alright Thomas well I appreciate it and we'll probably have you on again next year for another update

Thomas: okay thanks great goodbye

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