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Stats

Please post final team rankings in some manner if possible. Thanks!
Is there a leaderboard somewhere?

Liam: We're a little reluctant to do this, given that a lot of teams might not want to have their rankings made public. Also, right now our leaderboard is a little broken in that it doesn't sort teams quite correctly. At the moment, we don't have plans to add one but we're definitely taking it into consideration given how much people seem to want one.

I know we try to give people random cool information being behind the scenes and all, and these are a few of the metrics we try to put out once our hunts finish. How many people participated? Who finished first? Who had the most answers submitted? Who had the craziest answers?

Liam: Just over 1400 people registered, ✈✈✈Galactic Vacationers✈✈ 🐉 finished first. Unfortunately our server doesn't have a good way of telling me who submitted the most answers. As far as funny answers go, my favorite snipe attempt was "Neutral Milk Hotel" on Outflight.

Tom: Our closing ceremony has some stats and interesting answers:
https://youtu.be/dOIAbZeoPNg

Jacqui: Here are some (hand-picked for level 1, randomly selected for levels 2 and 3) attempts to solve Stroke of Genius:
http://jacquifashimpaur.com/sketch_garden/playback_flowers.html

http://jacquifashimpaur.com/sketch_garden/playback_fish.html
http://jacquifashimpaur.com/sketch_garden/playback_boats.html

Would love to see the charts for solve times for each puzzle for all the teams, and any stats or examples on stroke of genius.

Liam: That's a lot of data, and a lot of data we're not entirely sure everyone is super comfortable having released!

Sam: I agree with Liam, but here is data about the *first* team to solve each puzzle, as well as how many teams solved each puzzle:

Puzzle	First Team	First Time	Solves
Inflight Entertainment	Misremembered Apple	01:01 p.m.	366
Braving the Elements	Mobius Strippers	01:09 p.m.	332
Broken Phone	Kevin	01:16 p.m.	308
Archipelago	✈✈✈Galactic Vacationers✈✈🐉	01:21 p.m.	312
Sweeping the Beach	Eggplant Parms	01:28 p.m.	307
Island Chef America	Dirty Bayes	01:30 p.m.	288
Coconuts	PC Potpourri	01:41 p.m.	289
Stroke of Genius	Mobius Strippers	02:00 p.m.	274
Splattered Printout	✈✈✈Galactic Vacationers✈✈🐉	02:18 p.m.	221
Nonogram Crossword	✈✈✈Galactic Vacationers✈✈🐉	02:25 p.m.	297
Horizons	✈✈✈Galactic Vacationers✈✈🐉	02:28 p.m.	276
Climbing the Mountain	✈✈✈Galactic Vacationers✈✈🐉	02:35 p.m.	243
Time Travel	✈✈✈Galactic Vacationers✈✈🐉	02:35 p.m.	266
Recalculating...	✈✈✈Galactic Vacationers✈✈🐉	02:40 p.m.	224
Black Box	✈✈✈Galactic Vacationers✈✈🐉	02:54 p.m.	217
How Can We Communicate?	✈✈✈Galactic Vacationers✈✈🐉	03:13 p.m.	206
Spoiler Alert!	Duck Gizzards	03:15 p.m.	243
Outflight Entertainment	✈✈✈Galactic Vacationers✈✈🐉	03:30 p.m.	173

Behind-the-Scenes

What was the first puzzle written?

Liam: Inflight and Outflight were conceptualized first, and Black Box and Climbing the Mountain were written simultaneously. However, all of these puzzles were constantly revised through the writing process. In general, you want to start a hunt by writing your metapuzzles (although

Jacqui and I wrote How Can We Communicate? later, with the feeder answers already decided…)

What was the hardest to write?

Liam: I can't speak for other authors, but from concept through planning through coding and debugging and playtesting, Island Chef America was pretty brutal to put together.

Jake: Of what I worked on, putting together mini-puzzles that used both the meta-mechanics as well as the inflight puzzle styles was difficult for Outflight. Although I know there's other puzzles that were much harder to implement than Outflight once they nailed down their mechanics.

Sam: Among the puzzles I wrote, it's definitely Nonogram Crossword. For the nonogram, I first decided that the middle row would be 4 4 because it results in a unique solution for the middle row that is not immediately obvious. After that, the first grid I tried turned out to be a uniquely solvable nonogram. But it was very difficult to come up with a reasonable crossword fill for this grid because the middle row meant that several 7-letter answers had to be adjacent to each other.

Jacqui: Yeah, it's hard to compare everything because we each wrote pretty different subsets of the puzzles. Of the ones I worked on, Stroke of Genius definitely took the most time to implement, but from a puzzle perspective was pretty straightforward. Liam and I spent a lot of time combing through Bill Nye parody lyrics to make How Can We Communicate? work.

Tom: Stroke of Genius was the puzzle I worked on that required the most effort, but Black Box probably involved the most discussion/revision. It was difficult finding cities named after common words that were unambiguous. Also we changed the answer a few times, which required me to redraw the island map.

How long does it take to make a puzzle hunt like this?
How much effort does this take to put on?
Really interested in hearing how big your construction team is, and how long it took you to put this together.

Liam: An average puzzle, concept to writing to playtesting to formatting, can take upwards of 20 hours to write - and that's not including overhead like graphic design, server management, or answering hints. Needless to say, it's a lot of work. Between our 8 puzzle writers (who all do this on a volunteer basis) we have to keep things relatively smaller-scale to keep the quality at the level it's at.

Jacqui: For a more large-scale timeline, we started conceptualizing this hunt right after the last one (in October). We brainstormed a bit, and then voted on the Getaway/Castaway theme the last week in October. After that we spent a few weeks discussing general structure before

landing on the one you saw: inflight, all standard puzzles, three metas, outflight. The first two metas (Climbing the Mountain and Black Box) were written before we went away for Christmas break, and everyone on the staff worked on one of them. Once the metas were written, we had our feeder answers and people could claim them whenever they had a puzzle idea. Then individual puzzles came in over the next few months, but at least 4 or 5 of our puzzles didn't have a draft finished until the day before our first full playtest on April 11th (two weeks before the hunt). Puzzle hunt work in general ramped up exponentially as the hunt approached. I was still committing changes to Stroke of Genius the morning of the hunt, and as some of you noticed, the final plot video wasn't finished until about 6:00pm during the hunt.

I love knowing any "behind-the-scenes" stuff, like what you changed from original versions of puzzles, anything that got cut, etc. Was there a universally loved or a universally hated puzzle? So if you are willing to share any of that!

Liam: Most puzzles go through fairly heavy revision before they are published, and unfortunately most of the changes aren't that interesting. The Sudokus were 9 by 9 in an earlier version of the hunt rather than 6 by 6, and that would have taken the Outflight sudoku from "maybe too hard" to "definitely way too hard."

Jacqui: We playtest everything pretty thoroughly to avoid having any "universally hated" puzzles. We start playtests early: every puzzle must have a draft in for the first outside playtest, which involves a team of alumni solving through the whole hunt. But we test each other's puzzles more or less as soon as they are ready. We rarely cut a problematic puzzle, though, since people put so much work into them. We'd rather revise it until it doesn't have those problems.

Tom: I really wanted to make a Minecraft puzzle based on crafting but couldn't get it to work out.

How did the quarantine affect hunt planning? I assume the Google Maps runaround used to be IRL?

Liam: Bold of you to assume that we wrote a runaround that far in advance. As far as hunt planning goes, it mostly worked the same, except that we couldn't meet in person for meetings and we had to axe any in-person runarounds or physical interactives (which was why there were 3 puzzles with digitally interactive components).

Jacqui: Yeah, Recalculating was one of the last puzzles written, after we already knew quarantine was happening. It was always centered around Google Maps. We wouldn't make people physically run that far! No runarounds or physical interactives had been written at the time we made the switch, so it wasn't a huge change. We did have to reach out to our sponsors to let them know we wouldn't be serving everyone free pizza this time. :(

Tom: I think the biggest impact was the increased number of participants. We had to do a last minute migration to AWS to ensure the site didn't crash. Shout-out to Dillon for helping us with that.

What tech does the site run on?

Liam: We roll our own server code! In fact, a few other puzzle hunts have used our tech before - I believe MLPhunt was on a modified version of our software.

David: https://github.com/dlareau/puzzlehunt_server

Sam: The website runs on Django Python. The code is fully open-source at the above Github link and is maintained by Dillon Lareau, who has been nothing short of amazing.

Liam: Seconding Dillon being amazing. The hunt would be nowhere near the quality it is today without him.

Tom: Completely agree. Thanks so much Dillon for all of your help!

What did you think of the teams who participated? Have you had any conflicts, rude messages or hint requests, or otherwise negative behavior that is disrespectful of the time and effort you spent making high-quality puzzles? If I were to create a hunt of my own, do I have to worry about this?

Liam: Almost all feedback and communication with teams is great and friendly, and I wouldn't worry about it at all if you're writing a hunt of your own. While there are a few people who can be disrespectful of our time, it's a tiny tiny minority and a lot of those people are just frustrated or annoyed.

Jake: The only time when I personally have seen someone be rude towards us about a puzzle is on our feedback forms when we're explicitly asking for feedback about a puzzle. And at that point it's probably more people who are frustrated about not being able to solve a puzzle taking that frustration out in the form rather than thinking about wording their feedback in a way that's not as rude. But like, those are definitely the exceptions rather than the rule. The puzzlehunt community is generally pretty friendly :)

Tom: Yeah, fortunately most people who participate are interested in doing the hunt and don't try to be disruptive. We definitely get some angry messages/comments every now and then, but mostly because people get frustrated when they can't solve something.

Was it intended that Island Chef America was so guessable from half the clues?

Liam: Yep! For a lot of people, trying to cook all five dishes can get tedious. As a result, the puzzle requires you to explore the island and cook just enough to "get it" before it gets on your nerves. Although if you do cook all five, kudos to you.

Just hope you go into some detail about the construction of the puzzles and hunt as a whole, there might be some of that in the solutions already but I haven't read them yet.

Liam: Hopefully the rest of the wrapup post satisfied you on this point.

Jacqui: People approach puzzle-writing in many different ways. In general, I'd say we just try to brainstorm interesting mechanics related to our constraints, and work from there. Some quick examples that come to mind: when we were writing "Climbing the Mountain," we knew plot-wise it was going to be about a mountain, and Isaac noted "There are such things as 'mountain words' where the letters increase and then decrease in alphanumeric 'value'." We liked that idea as a mechanic, so we used it. For "Stroke of Genius," we were given the feeder answer "ACRYLIC," so I knew I wanted it to be an art-themed puzzle. We initially tried using style transfer to transform famous paintings and make a sort of art-identification game, but the results weren't good. Then I was playing around with [fugpaint](#) and said "What if this were a puzzle?"

About Puzzle Hunt CMU

I only briefly looked through the archives for Time Travel - are these twice a year?

Liam: Yep! We put on (at least) 2 hunts a year. I hope you join us for fall 2020!

How often do you do time travel hunts? It's a theme I really enjoy.

Liam: We don't have plans to revisit Time Travel as a theme in particular - we like to vary our themes from year to year to avoid getting stuck in a rut, and we're not sure what we'd do for a gimmick like we had for Time Travel Hunt. That being said, you never know what the future holds, especially if you have a time machine..

Do you plan on doing more online puzzle hunts? None of our team could have gone to the university if it took place there, but we had a ton of fun in this hunt.
Will you do fully online hunts in the future, or was this a one-off thing?
Will you be doing future hunts that are solvable remotely? If so, I'd love to participate!
Will future hunts be open to non-CMU teams in the future (with the understanding that we can't solve onsite puzzles)? This one was super well put together and we'd love to participate in the future.
Will future hunts also be held online even when COVID-19 disappears, because I don't think I'll ever meet someone who will go to CMU (Well, I might)
[…]Also, do you plan to make future CMU hunts internet-friendly?

Liam: It's unlikely that our mainline hunts will be all-online in the future, although they're 90% solvable (and definitely finishable) remotely. In our previous 2 mainline hunts, the team which finished first was remote. We encourage off-site teams to sign up for future hunts - you'll be able to experience almost all of the hunt even if you aren't here. If you let us know that you're offsite, we might be able to work out replacements for puzzles which require you to be here. We're glad that a lot of puzzle hunters gave us a shot, and I think you'll enjoy our work in the future!

Jacqui: Yeah! Our hunts have never been restricted to a CMU-only audience, though I'm glad this hunt in particular managed to reach so many more people. Most of our puzzles are totally solvable remotely (as I'm sure you'll find if you look through our hunt archive). One thing to note, though, is that we usually aren't willing to mail prizes out, so our normal prize-eligibility requirement is a Pittsburgh presence (but not necessarily having a CMU student).

How do you manage to write so many events each year? Do you have different writing teams?

Liam: ahahahahahahaha i wish. we only have 1 relatively small writing team and we do basically everything. we get so much done because we are real cool

Jacqui: When puzzles need writing, you step up (and, in all likelihood, stay up) to make it happen. But no one was forced to make a puzzle they didn't want to. You claim each puzzle you want to write, and several of our writers only made one. See? Puzzle Hunt can take as much or as little time as you want! Hahahaha please join our staff...

I would love to help out and test/make puzzles! Let me know if I can be a part of the process.

Liam: We'll get in touch with you and everyone else who expressed interest in the next hunt!

Jacqui: Yeah! Since we are a CMU club, I don't think we can really get non-CMU students involved as staff members, but if you go to Carnegie Mellon then you should definitely join the staff! We'll be having an interest meeting this Friday (5/8) evening at 7:00pm EDT at this Zoom link: https://cmu.zoom.us/j/92635339239.

Our Favorites

Who are your favourite my little pony characters?

David: https://youtu.be/x8tVoriImK8

Liam: [illegible garbled text]

What's your favourite AC:NH villager if you have one?

David: I like Marshal and Pashmina, but it'd be hard to pick a favorite!

Liam: everyone on twitter likes the hot cat so him

If you could take one item to help you survive on an island after your plane crashed, what would you take?

Liam: an airplane

Jacqui: Liam, do you know how to fly an airplane? That sounds like a recipe for disaster. I'd probably want something like this: https://www.gotoky.com/ Boring answer, I know, but I think all of us would rather get off the island ASAP than survive there for a while.

What are some of your favourite puzzles from other hunts?

Liam: Some of my favorite puzzles of all time include the Safari Adventure meta from Mystery Hunt 2020, Unsafe from GPH 2019, the metas from Puzzle Potluck 2019, and the Mega Man metameta from the video game Mystery Hunt. (I haven't been solving for that long - I've actually been writing puzzle hunts for longer, honestly.)

David: Twitch Plays Mystery Hunt from MH 2018 will always be a favorite for me. That was the first MH for several of the current staff and we worked on it together.

Sam: I second Liam on the Safari meta. Also, Moat-er Boats from the same hunt had amazing clues. For puzzles further back, I would choose Math 101 and Split the Reference from Galactic Puzzle Hunt 2018, Cuspidation from GPH 2019, and Hashiwokakuro (Count your bridges) from MH 2018.

Jacqui: My most recent other hunt was Mystery Hunt 2020, and some favorites there were Moat-er Boats, Stress Test, and Player Piano. I also really enjoyed Voter Fraud, Twitch Plays Mystery Hunt, and Under Control from Mystery Hunt 2018 and Water Works from DASH 2018.

What are some of your favourite puzzle games?

Liam: Stephen's Sausage Roll is the greatest puzzle game ever made. Some of my other favorites are Recursed, Baba is You, and Pipe Push Paradise.

Jake: I'm a normie, so Portal. Although in some ways I kind of consider board games like Pandemic and City of Kings to be like puzzle games, since they're cooperative and the state of the game evolves in a semi-predictable way. It's sort of like solving a puzzle.

Sam: Braid.

Jacqui: Portal 2, but not for the puzzles. Baba is You has my favorite puzzle mechanic.

Tom: Portal 2, Portal, and Baba is you. https://youtu.be/Ca5BYKRVXHM

What are some of your favourite books, puzzle or otherwise?

Jake: *Remains of the Day*, although in terms of stories in general I really like the short story *Helping* by Robert Stone

David: *Infinite Jest*, *His Dark Materials*, and *The Great Gatsby*.

Jacqui: Yeah I gotta say *The Great Gatsby* for the prose, but I am still not over *Ender's Game* either.

Tom: I love *Ender's Game*.

Puzzle Solutions

Could we have a walkthrough of the last sudoku please?

Liam: There's a solve path in the solution for the puzzle. I admit, the Outflight sudoku is maybe the hardest thing in the hunt, but it was one of my favorite things to write (I've always wanted to put a no-givens logic puzzle in a hunt), so I have no regrets.

HOW WAS I SUPPOSED TO DRAW THE BOAT?????

Liam: carefully

Sam: In all seriousness, the solve path is given in the solution for that puzzle. You have to draw the boat *after* you select gray from the palette.

Jacqui: Walkthroughs for all Stroke of Genius levels can be found here: https://www.youtube.com/playlist?list=PLNWSh4gi16LF1yqRYVwl0IgWCXWZJqIQj

prepuzzle solution?

Liam: Read the missing leaves on the palm trees as semaphore flags. I admit, we were doing so well on not having any semaphore and then we ruined it on the prepuzzle…

Jacqui: Yeah… we had a deadline to meet with the prepuzzle and no good ideas. But fun fact: the bar code on the boarding pass on the prepuzzle poster/website also says "GETAWAY HUNT" if you scan it. Some people did that instead of the semaphore (I don't blame them).

Fun

How did a blender end up on the island, fully functional?

Liam: It didn't end up there, it was jury rigged out of scrap metal and a tide pool. (I admit, that one stretches suspension of disbelief a little.)

Why did I not get snacks or drinks on my flight?

Liam: In this global pandemic, airlines are trying to hold off on interpersonal contact or having multiple people handle the same objects, and that includes not serving snacks on flights. I think that Perfectly Safe Airlines might just be cheap, though.

Jake: they were on the plane, but were never brought out because the flight attendants were also working from home.

Tom: Fun fact: Jane Street was originally set to sponsor pizza for the hunt but had to be switched over to sponsor prizes when we went remote.

How many letters are in the answer to this question?

Liam: 4

Sam: Not anymore. Twenty-six.

Tom: Twice the number of letters in the phrase "Twice the number of letters in the phrase".

I am terminally diagnosed with (insert bad disease here) because of slalom skating. Are you able to pay my medical bills at UHS with dinex?

Liam: no

David: I prescribe one Ultimate Brownie per day until symptoms improve.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAa.

Liam: BBBBBBBBBBBBBBBBBBBBBBBBBBBBb.

Miscellanea

Why did Google make so many maps (different timepoints) on your campus?

Liam: I don't know if other campuses have similar amounts of Google Maps data, but CMU has a lot of Google and Google-adjacent presence on campus, so you can blame our tech overlords for that.

For recalculating does the bus always appear? Because google maps didnt seem to like us too much

Jacqui: It should if you're still in 2017. To avoid changing years, I like to navigate with the arrow keys (ie. hold the up arrow key to go down that road). But unfortunately, Google Maps is finicky, ESPECIALLY on that road for some reason, where it's so easy to click into a region where 2017 isn't available. :(

Can you make a phone app for Stroke of Genius? I'd pay to play.

Jacqui: Interesting. I'm definitely considering implementing it as a full computer game (but don't put too much stock in that--I'm always "considering" like 10 different projects). As a phone app it would have to be quite different, as many of the brushes (ie. pink, brown) respond to you moving your mouse even without having the mouse down. I'm glad you liked it! We have several more level ideas that we never got to use, but I'm talking maybe 6 so far, not the 50+ you'd want for a satisfying puzzle game.

Did you really use PowerPoint to create the videos?

Jacqui: OH YEAH WE DID. Gotta love that Animation Pane (and Morph Transition). In particular, we used PowerPoint to actually draw and animate the animated stuff, but used other video editing software to combine it with audio and add some finishing touches.
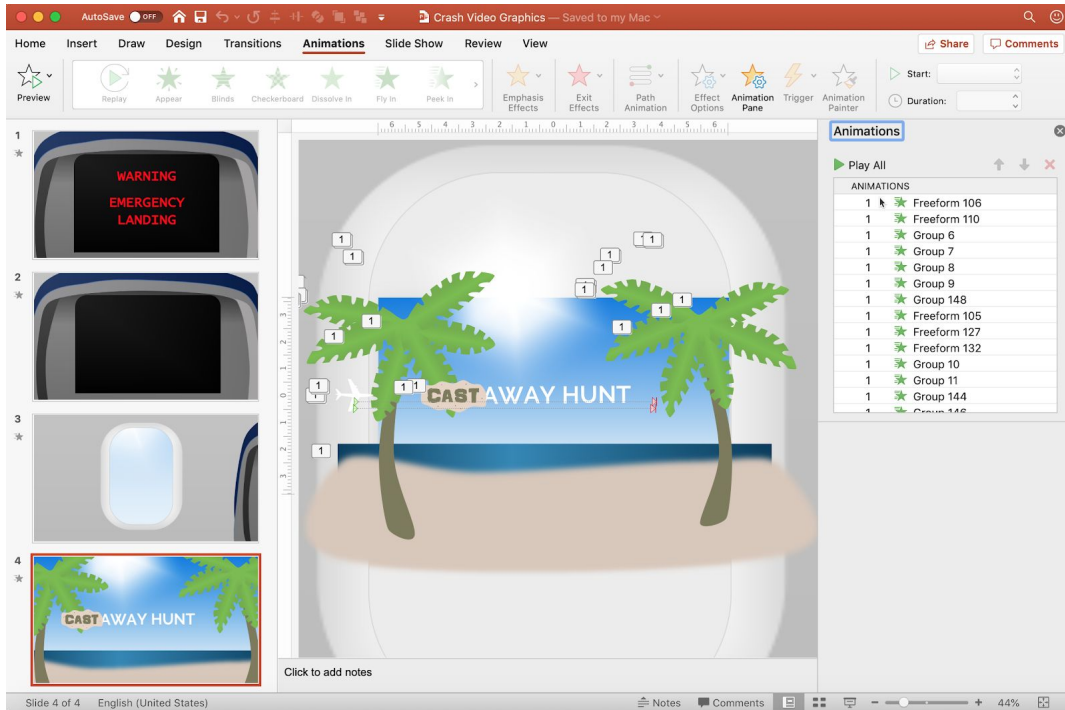
Tom: Since joining the club, PowerPoint has slowly replaced every other piece of software we use for puzzle creation (LaTeX, image editing, video editing). We'll see how long that lasts once Jacqui and I leave.

Mostly a good job making this all work remotely. Perhaps think a bit more about how people solve when not in the same location as each other.

Liam: Unfortunately, integrating collaborative solving software into our hunt website is a little beyond our scope. When solving hunts remotely, try collaborating by using software like Google Sheets and Discord.

Tom: One future improvement we could make is making it easier to copy+paste grids from our puzzles into Google Sheets.

Not really a question, but thanks all for putting this on the puzzle hunt calendar and making it open to the general public! Quarantine has been really rough on me psychologically, so this was a great "getaway" for a day :)

Liam: No problem! Glad to see our marketing push worked out - all our hunts are open to the general public though, and we encourage you to solve our future hunts remotely as well!

Jacqui: Yeah; I didn't expect it to bring in this many people, but we'll definitely be using it in the future. As you've probably seen 10 times in this document already, our hunts are always open to the public, so we hope to see you back next time!

Tom: Thanks for participating! You can also check out our past hunts in our archives.

Thanks for putting together the hunt.
i love u youre the best thank you for your hard work

Liam: Thanks for solving <3

Jacqui: We do this for you solvers! <3 I'm glad the hard work paid off.