



CORRUPTED

BLOOD

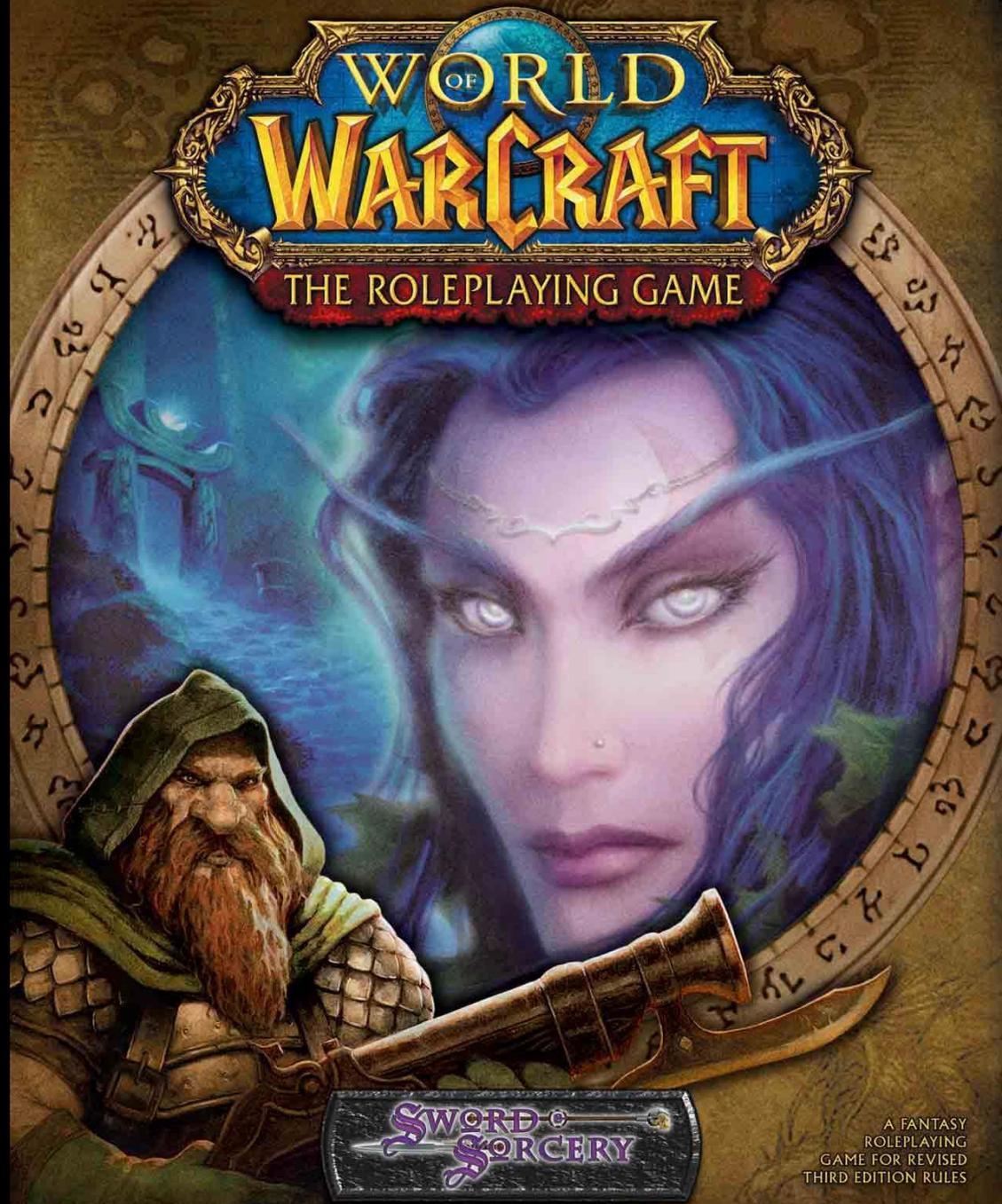
A virtual pandemic and its impact



UDLS Lecture

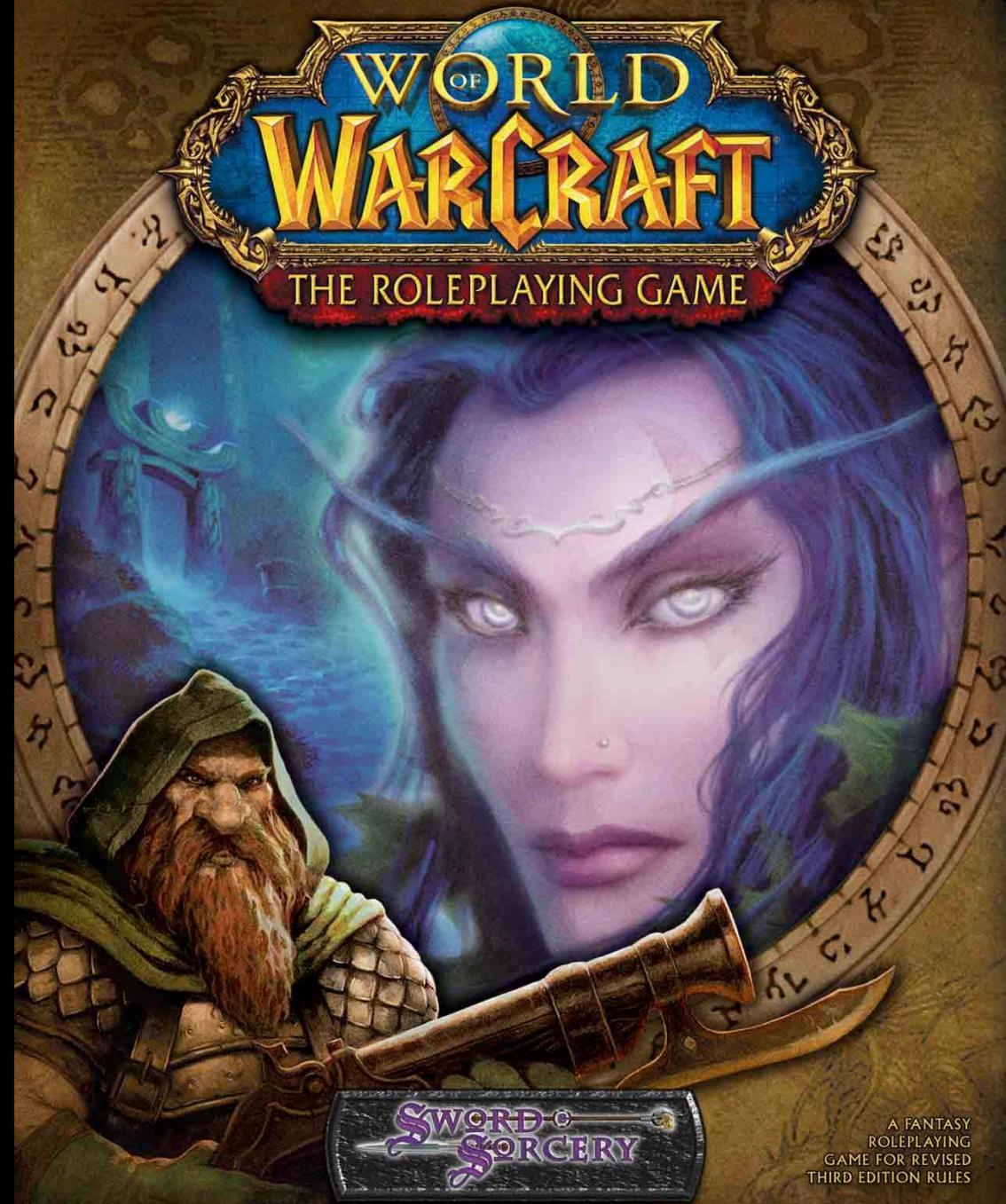
By Joseph Wonsil – Nov 27, 2020

WORLD OF WARCRAFT



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- I've never played so....
- Action / Adventure: Massively Multiplayer Online Role-Playing Game (MMORPG) made by Blizzard
- Create a character, go adventuring in an open world, and participate in raids
- Virtual world has urban and rural areas with non-player character (NPCs) and other player characters



GAMEPLAY MECHANICS

- Character has various attributes and skills that can be used to fight depending on their chosen 'class.' Ex. Pets, which can be summoned and dismissed



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- Character has various attributes and skills that can be used to fight depending on their chosen 'class.' Ex. Pets, which can be summoned and dismissed
- Raids, events, and dungeons



THE ZUL'GURUB RAID

- Raid introduced in 2005
- End boss battle with Hakkar the Soulflayer
- He could apply 'debuffs,' a temporary status effect that would hinder you in some way
- Debuffs are gone if you leave Zul'Gurub



CORRUPTED BLOOD

- One debuff was called *Corrupted Blood*
- This affliction would cause damage to your character and could spread
- Raid groups had to fight spread out to avoid extra damage during the battle
- Had the power to ~~KILL~~ a lower-level player in a few seconds
- Debuff was temporary, and lost if you traveled outside of Zul'Gurub





BUT SOMETHING WENT WRONG.....

SPREADING THE AFFLICTION

A glitch

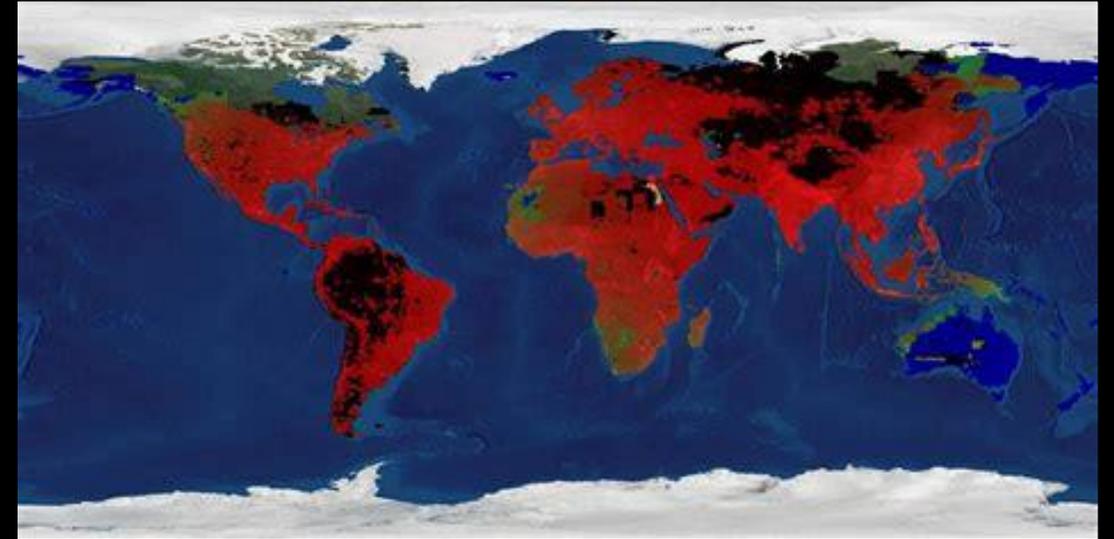
Pets could contract Corrupted Blood, and then be dismissed

When a player left Zul'Gurub, they could summon their pet again.....still afflicted with the debuff that automatically infects nearby characters



VIRTUAL PANDEMIC

- Blizzard has now accidentally created a pandemic model with millions of participants
- Lower level players were killed off in seconds
- Higher level players could keep themselves alive, potentially spreading more



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- Players fled high-density urban areas
- Malicious players intentionally infected others, and did not try to help contain the pandemic (griefing)

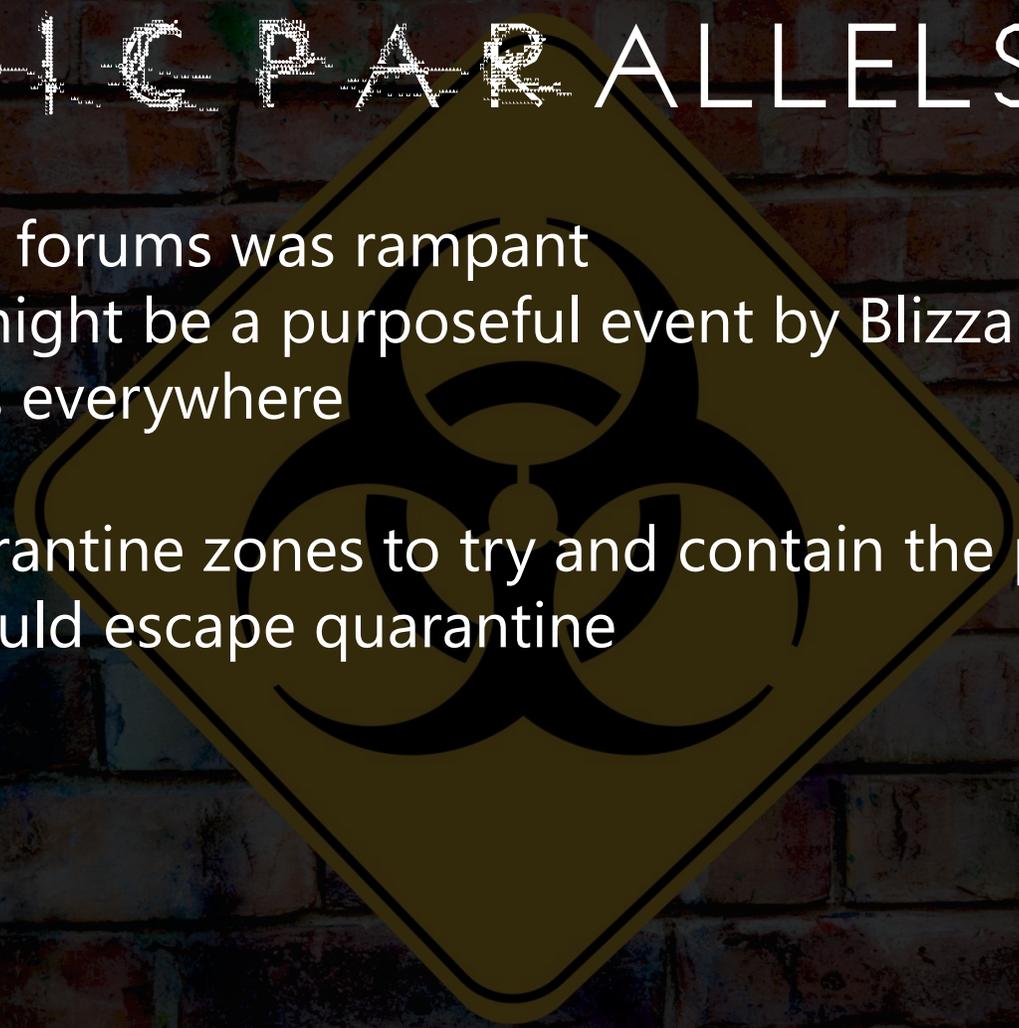
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- Blizzard added quarantine zones to try and contain the pandemic
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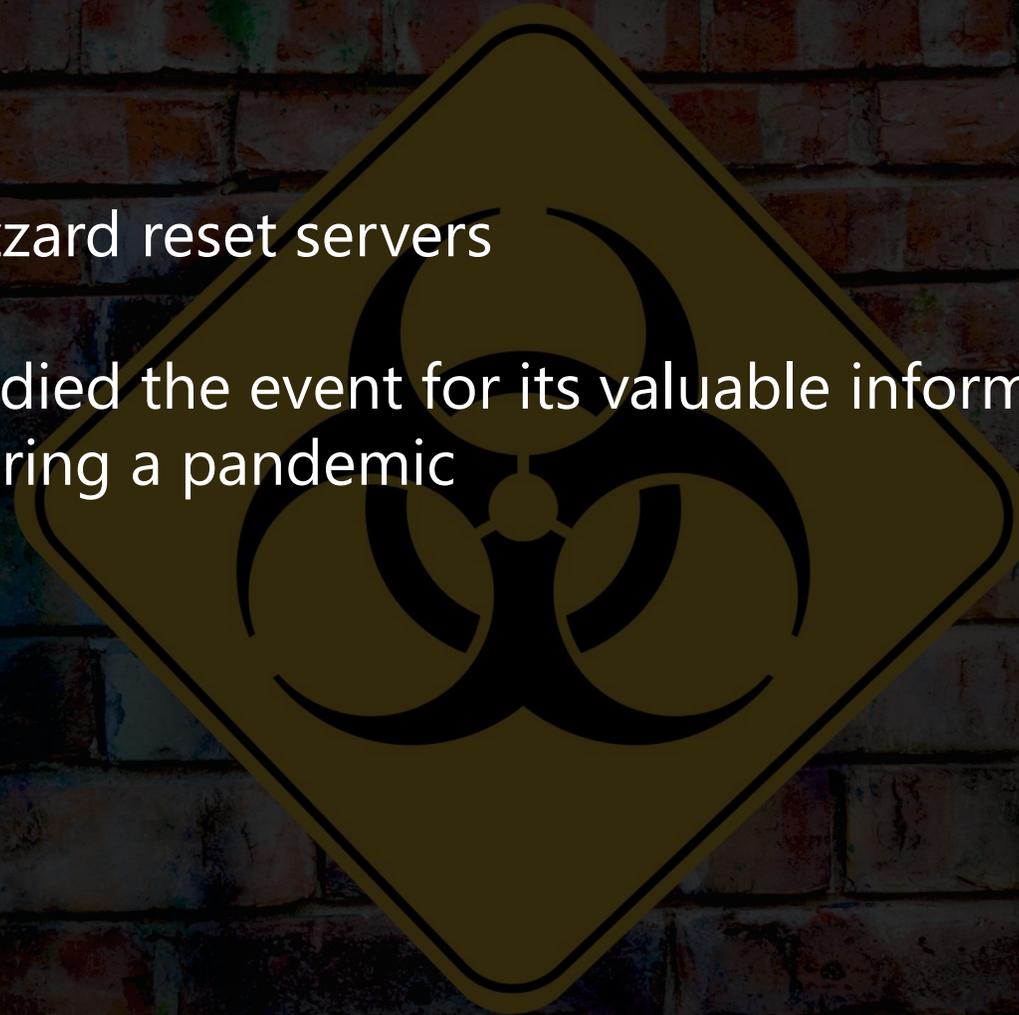


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- Infected players would escape quarantine
- Curiosity: players would rush in to watch and then try and leave, mirroring journalist behavior

IMPACT

- Didn't end until Blizzard reset servers
- Epidemiologists studied the event for its valuable information to human behavior during a pandemic

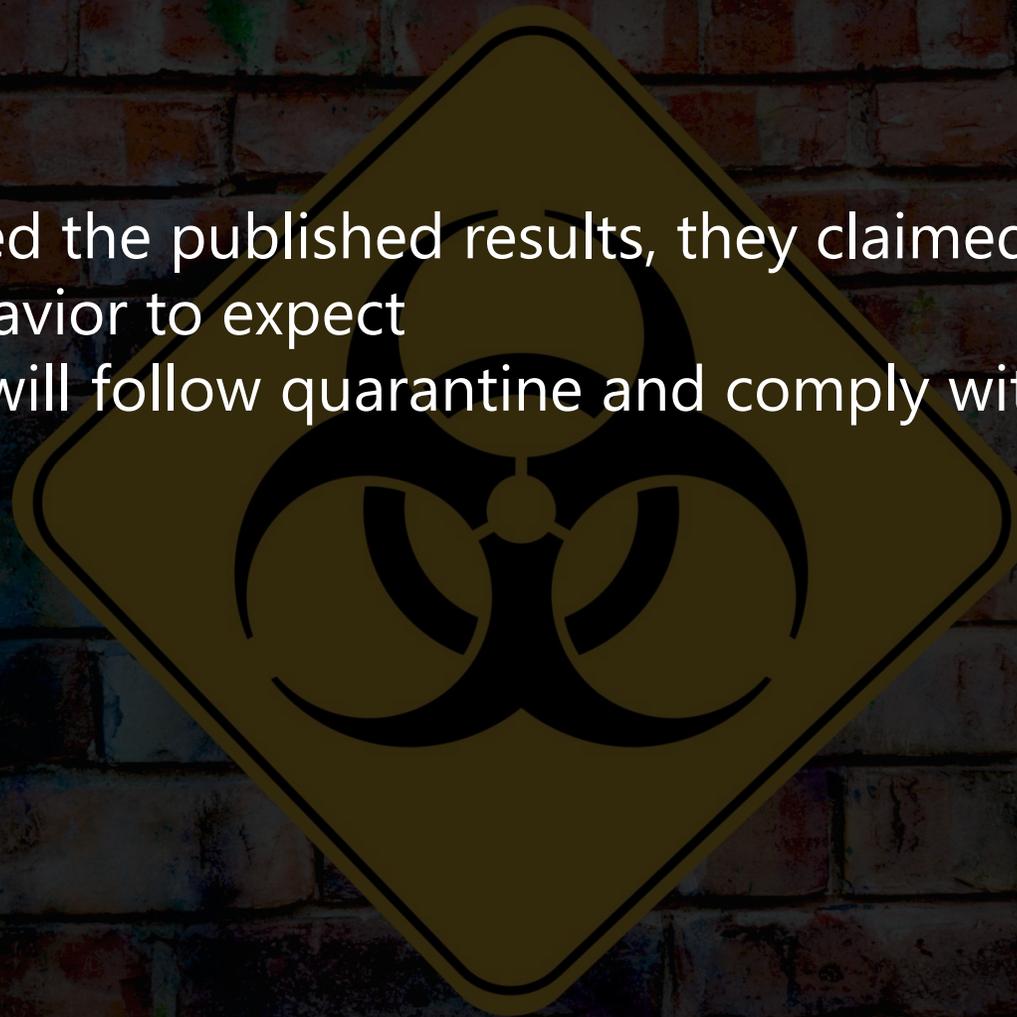


IMPACT

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- Epidemiologists studied the event for its valuable information to human behavior during a pandemic
- Dr. Ran D. Balicer published an article in *Epidemiology* about how the event mirrored the then-recent SARS and avian influenza outbreaks... Dr. Balicer also published a follow-up in *Science*.
- The CDC contacted Blizzard to ask for statistics on the event

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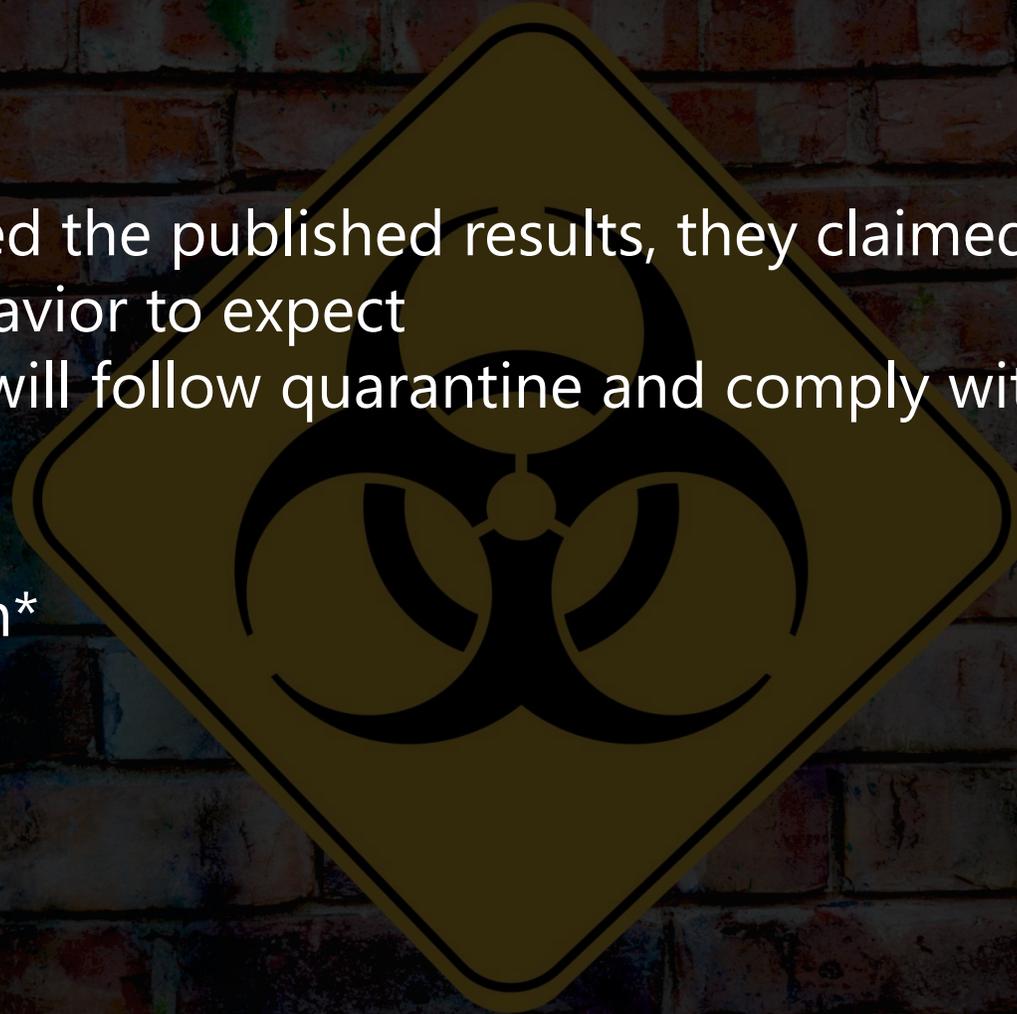
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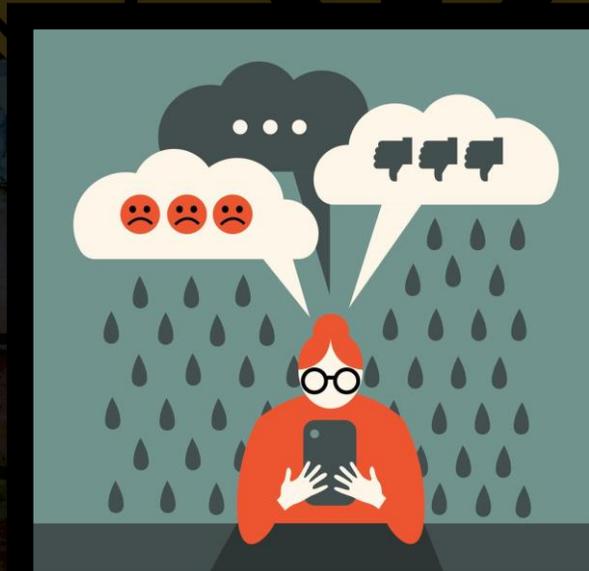
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Dr. Nina Fefferman, coauthored, now researches perceptions in a pandemic, especially relating to social media



LESSONS LEARNED

- Did we? Maybe not....
- Did Blizzard?
 - Had a (planned) event in which they released a zombie plague for advertising their new expansion *Wrath of the Lich King*
 - Was more true what a disease acted like (less than 100% transmission rate)
 - Critically praised
 - Green Fire Incident.....

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 - Green Fire Incident.....exact same as corrupted blood, pets transmitted debuff from boss battle. However, was fixed in a day, and kept under control this time.