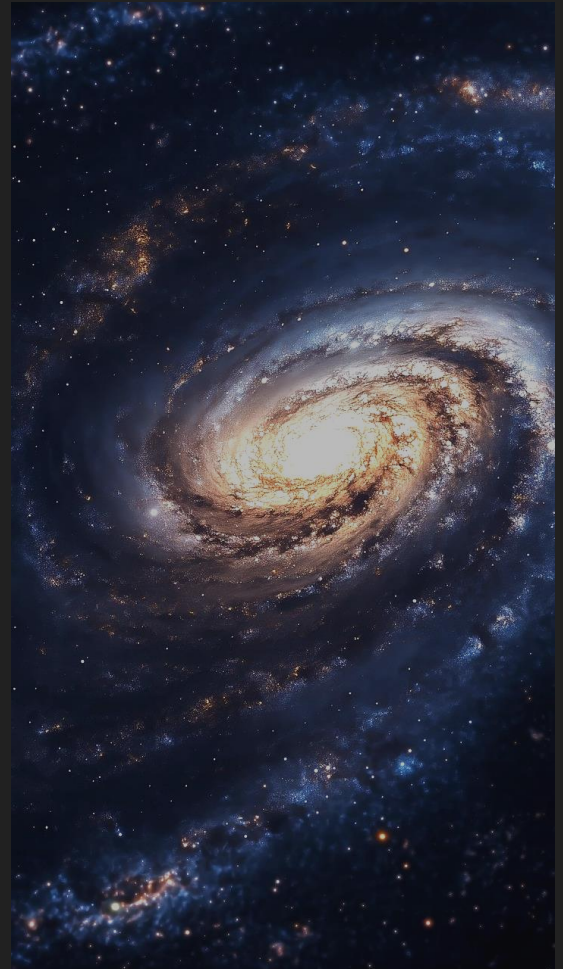


Future Space

An analysis of Stellaris Players' Custom Created Playthroughs

Table of Contents

- ★ Brief introduction of the subject
- ★ Purpose of Analysis
- ★ Description of the Data
- ★ Process and tools used
- ★ Findings
- ★ Conclusion & Recommendations
- ★ Bibliography



What is Stellaris?

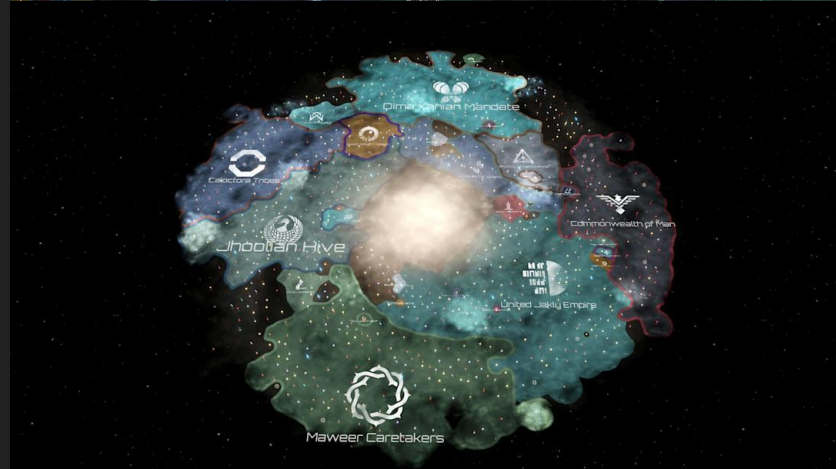
- ★ Stellaris is a strategy video game developed by Paradox Development Studio and published by Paradox Interactive
- ★ The game gives the player control over a space faring civilization as it progresses through the stars and interacts with phenomena, celestial objects and other civilizations



Stellaris box/cover art

Why Stellaris?

- ★ One of the game's core features is allowing the player to create and customize their own civilization, from appearance to origin to internal politics, tailored to their preferred playstyle
- ★ The customization choices provide glimpses into the players' interests, which when analyzed, can provide insight for future game and business development



Official Stellaris screenshots from the studio's website

The Question? The Future

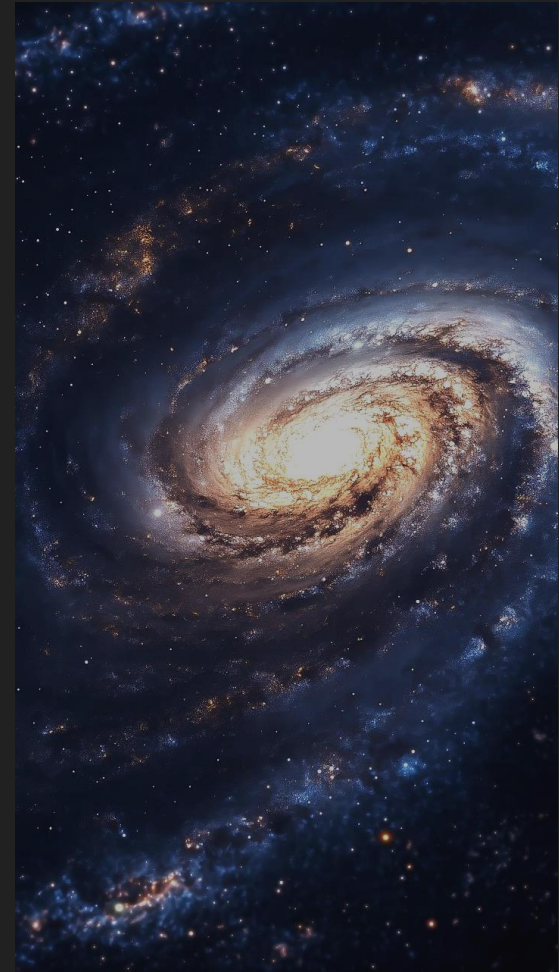
- ★ Where does the game go from here?
- ★ What are some aspects of the game which need updates?
- ★ What features could still be added to the game?



Official Stellaris screenshots from the studio's website

The Data

- ★ Manually collected the in-game data on player created civilizations and listed them in a spreadsheet file
- ★ Totalled number of custom civilizations collected was 122
- ★ Custom civilization data included player choices for internal management (Ethics, Government Types, etc) and for civilization background (Origin, Home Planet etc)
- ★ Included data for inspiration source on each civilization

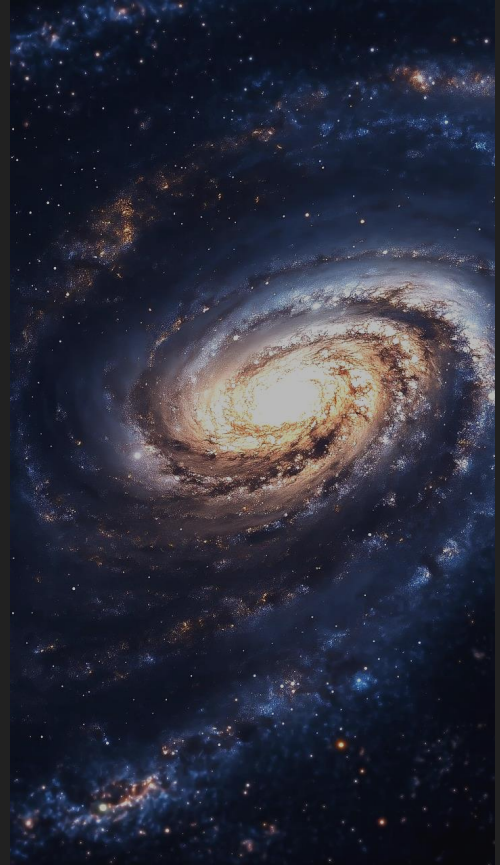


Snapshot into the Data

| K26 fx Police State | | | | | | | | | | | | |
|---------------------|--------------------------------------|------------------------|---------------|---------------------|-------------|--------------|------------------|-------------------|----------------------|---------------------------------|-----------------------|--------------------|
| | A | B | C | D | E | F | G | H | I | J | K | L |
| 1 | Civilization Name | Origin | Species Class | Inspiration Source | Copyrighted | Requires Mod | Home Planet Type | Solar System Type | Authority Type | Government Type | First Civic | Second Civic |
| 2 | Seraphon Empire | Syncretic Evolution | Reptilian | Warhammer Universe | YES | NO | Tropical | Random Unary 1 | Dictatorial | Elective Monarchy | Philosopher King | Environmentalist |
| 3 | Novus Interplanetary Network | Novus | Novus | UaW Universe | YES | YES | Continental | Novus System | Machine Intelligence | Novus Flow Network | Unitary Cohesion | Dynamic Flow |
| 4 | Galactic Supremacy of the Hierarchy | Hierarchy | Hierarchy | UaW Universe | YES | YES | Arid | Hierarchy System | Oligarchic | Purification Committee | Fanatic Purifier | Hierarchy Warrior |
| 5 | Taldarim Hegemony | The Forged (Taldarim) | Protoss | Starcraft Universe | YES | YES | Alpine | Taldarim System | Imperial | Chain of Ascension | Warrior Culture | The Forged |
| 6 | Terran Dominion | Terran Dominion | Terran | Starcraft Universe | YES | YES | Arid | Terran System | Imperial | Star Empire | Nationalistic Zeal | Police State |
| 7 | Sovereignty of the Manipulators | Overtuned | Hierarchy | General Sci-Fi | NO | YES | Arid | Random Unary 1 | Oligarchic | Executive Committee | Genesis Guides | Beastmaster |
| 8 | Grand Masari Empire | Masari | Masari | UaW Universe | YES | YES | Ocean | Masari System | Imperial | Masari Monarchy | Philosopher King | Masari Energy |
| 9 | Zerg Swarm | Zerg Swarm | Zerg | Starcraft Universe | YES | YES | Tropical | Char System | Hive Mind | Collective Consciousness | Subspace Ephapse | Zerg Hive Mind |
| 10 | Union of the Yetin Tribes | Common Ground | Covenant | Halo Universe | YES | YES | Savanna | Random Unary 1 | Oligarchic | War Council | Warrior Culture | Nationalistic |
| 11 | Kingdom of Ajo/Nerub | Subterranean | XCOM | Warcraft Universe | YES | YES | Arctic | Random Unary 2 | Imperial | Star Empire | Aristocratic Elite | Corvée System |
| 12 | Sovereignty of the Arakkoan Conclave | Here Be Dragons | Fantasy | Warcraft Universe | YES | YES | Savanna | Random Unary 1 | Dictatorial | Theocratic Dictatorship | Cutthroat Politics | Exalted Priest |
| 13 | Aeon Illuminate | Teachers of the Shroud | Star Wars | TC Universe | YES | YES | Continental | Random Unary 2 | Democratic | Theocratic Republic | Ascensionists | Environmentalist |
| 14 | Shuhalo Sovereignty | Fear of the Dark | Mammalian | Warcraft Universe | YES | NO | Savanna | Fear of the Dark | Democratic | Theocratic Republic | Environmentalism | Idealistic Flow |
| 15 | Star Dominion of the Chimaera | Post-Apocalyptic | XCOM | Resistance Universe | YES | YES | Tropical | Random Trinary 1 | Imperial | Star Empire | Catalytic Processing | Corvée System |
| 16 | Independent Nexus of the Sentinels | Resource Consolidation | Machine | General Sci-Fi | NO | YES | Arctic | Random Unary 2 | Machine Intelligence | Artificial Intelligence Network | Warbots | Elevational |
| 17 | Tau Empire | Prosperous Unification | Warhammer | Warhammer Universe | YES | YES | Savanna | Random Unary 1 | Dictatorial | Military Dictatorship | Shadow Council | Diplomatic |
| 18 | Eredari Council | Galactic Doorstep | Humanoid | Warcraft Universe | YES | YES | Continental | Random Binary 2 | Democratic | Theocratic Republic | Idealistic Foundation | Beacon of Light |
| 19 | Children of Bothawui | Tree of Life | Plantoid | Warcraft Universe | YES | NO | Tropical | Random Unary 2 | Hive Mind | Collective Consciousness | Mycorrhizal Ideal | Empath |
| 20 | Grand Empire of the Aeldari | Life-Seeded | Warhammer | Warhammer Universe | YES | YES | Gaia World | Random Unary 1 | Imperial | Enlightened Monarchy | Philosopher King | Cutthroat Politics |
| 21 | Necrontyr Empire | Remnants | Warhammer | Warhammer Universe | YES | YES | Arid | Random Trinary 2 | Imperial | Enlightened Monarchy | Philosopher King | Aristocratic |
| 22 | Astartes Directorate | Clone Army | Warhammer | Star Wars Universe | YES | YES | Ocean | Random Unary 1 | Dictatorial | Martial Dictatorship | Warrior Culture | Efficient Bur |
| 23 | Burning Legion | Necrophage | Necroid | Warcraft Universe | YES | NO | Desert | Random Binary 2 | Dictatorial | Military Dictatorship | Police State | Reanimators |
| 24 | Drukharri Cabals of Commorrhagh | Void Dwellers | Warhammer | Warhammer Universe | YES | YES | Orbital Habitat | Void Dwellers | Dictatorial | Bandit Kingdom | Barbaric Despoilers | Warrior Culture |
| 25 | Royal Naga Empire | Ocean Paradise | Fantasy | Warcraft Universe | YES | YES | Ocean | Ocean Paradise | Imperial | Theocratic Monarchy | Ascensionists | Aristocratic |
| 26 | Sethrak Sovereignty | Slingshot to the Stars | XCOM | Warcraft Universe | YES | YES | Desert | Random Unary 2 | Dictatorial | Elective Monarchy | Police State | Philosopher |
| 27 | Followers of the Ruinous Powers | Prosperous Unification | Warhammer | Warhammer Universe | YES | YES | Arid | Random Trinary 2 | Dictatorial | Martial Dictatorship | Ascensionists | Warrior Culture |
| 28 | Custodianship of the Starkeepers | Shattered Ring | Machine | General Sci-Fi | NO | YES | Ring World | Shattered Ring | Machine Intelligence | Artificial Intelligence Network | Unitary Cohesion | Elevational |
| 29 | Imperium of Man | Under One Rule | Warhammer | Warhammer Universe | YES | YES | Continental | Random Unary 1 | Imperial | Star Empire | Aristocratic Elite | Police State |
| 30 | Duarden Hegemony | Subterranean | Humanoid | Warhammer Universe | YES | NO | Alpine | Random Binary 2 | Imperial | Star Empire | Mining Guilds | Nationalistic |
| 31 | Orkish Horde | Prosperous Unification | Warhammer | Warhammer Universe | YES | YES | Arid | Random Binary 2 | Dictatorial | Martial Dictatorship | Warrior Culture | Nationalistic |
| 32 | Confederacy of Independent Systems | Mechanist | Star Wars | Star Wars Universe | YES | YES | Ocean | Random Unary 1 | Democratic | Direct Democracy | Parliamentary System | Efficient Bur |
| 33 | Royal Seraphim Hegemony | Mechanist | Star Wars | General Sci-Fi | NO | YES | Continental | Random Unary 1 | Imperial | Despotic Hegemony | Aristocratic Elite | Diplomatic |

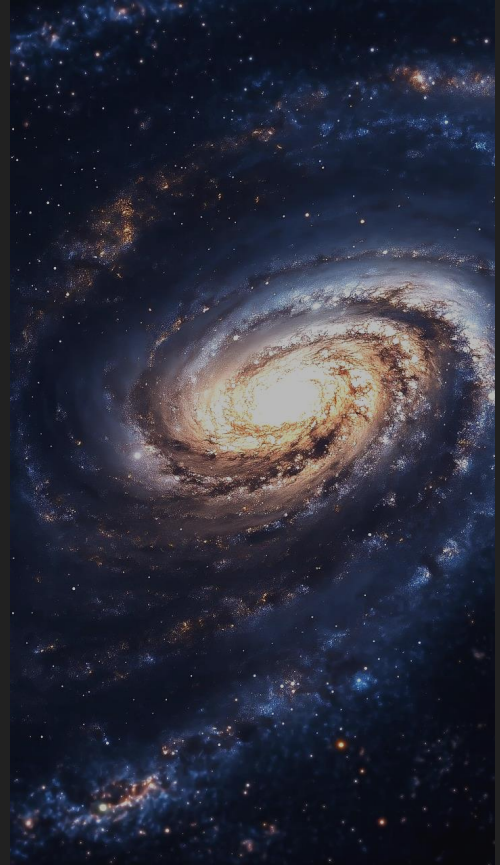
Data Cleaning & Processing

- ★ Utilized Spellcheck and Filters to check for any typos and inconsistencies in the data
- ★ Implemented data validation techniques (dropdowns) where possible
- ★ Made use of VLOOKUP to clarify and structure the data
- ★ Applied IF formulas for separating Copyright and Non-Copyright inspiration sources

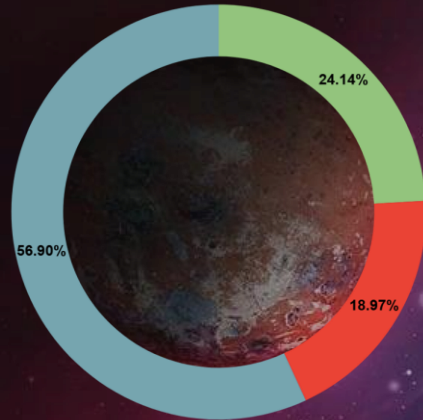


The Analysis

- ★ Made use of JOINS, SORT and TRANSPOSE to clarify the data for Ethics and Civic choices (which were originally a separate column for each choice)
- ★ Another special case was the separation of **Fanatical** (which focus two points on one particular ethic), **Gestalts** (which do not use ethics) and **Balanced** (which spread out their ethic points) Civilizations.
- ★ Used Pivots to restructure the data and allow generation of graphs and visualize data



Inspiration Sources for Non-Copyright Sources



● Nature ● Historic States ● General Sci-Fi

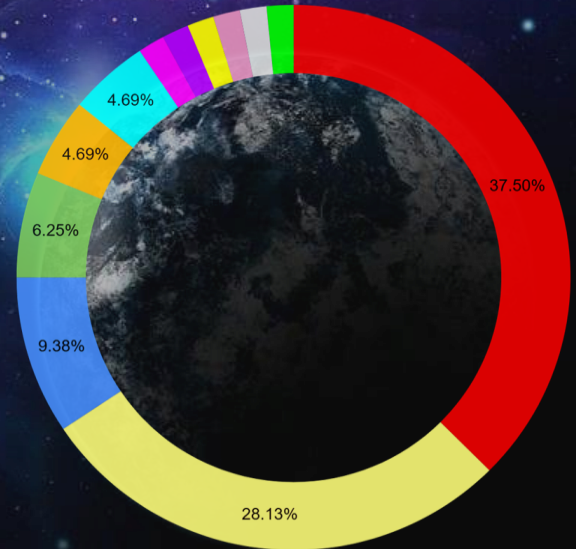
★ Non-Copyright sources are dominated by general Sci-Fi pop culture

★ Copyright sources are much more diverse but still show a tendency towards widely popular gaming franchises

Where ideas come from

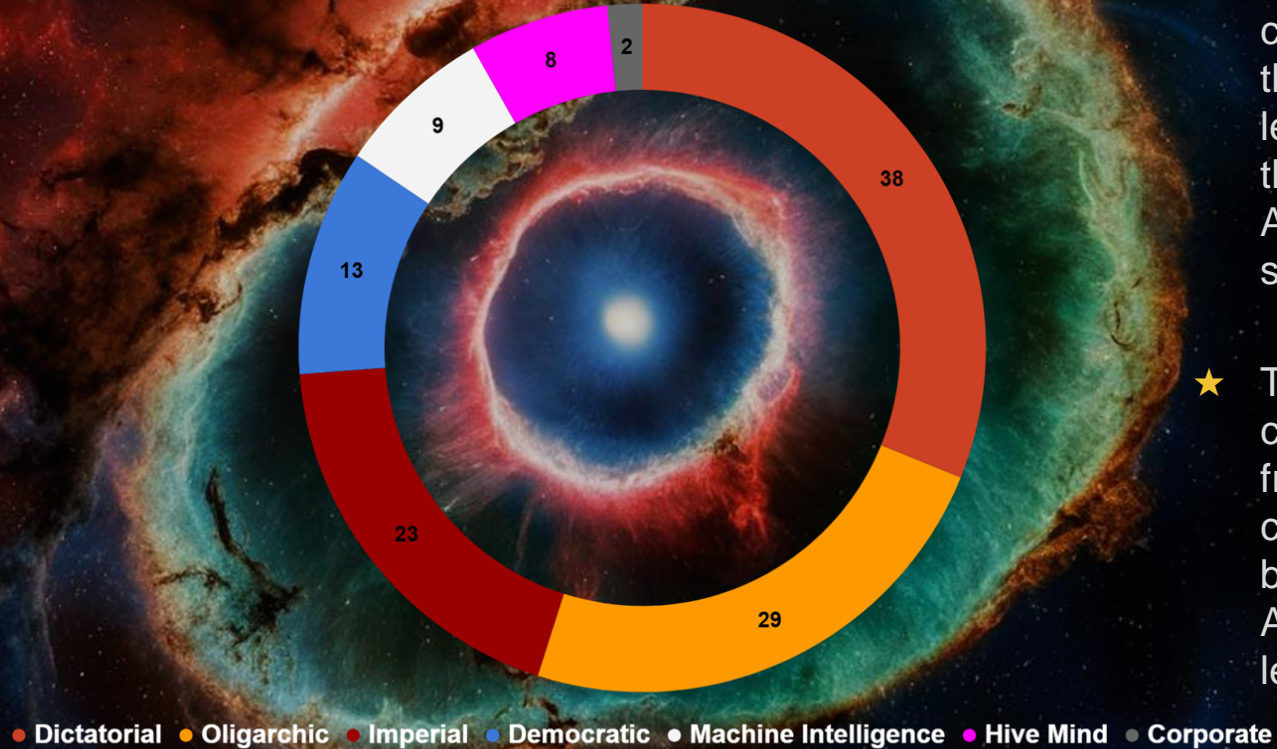
Inspiration Sources for Copyright Sources

- Warcraft Universe
- Warhammer Universe
- Starcraft Universe
- Star Wars Universe
- UaW Universe
- Halo Universe
- Transformers Universe
- TC Universe
- Resistance Universe
- Prototype Universe
- Crisis Universe
- CNC Universe



How the Galaxy Looks Like

Number of Civilizations per Authority Type



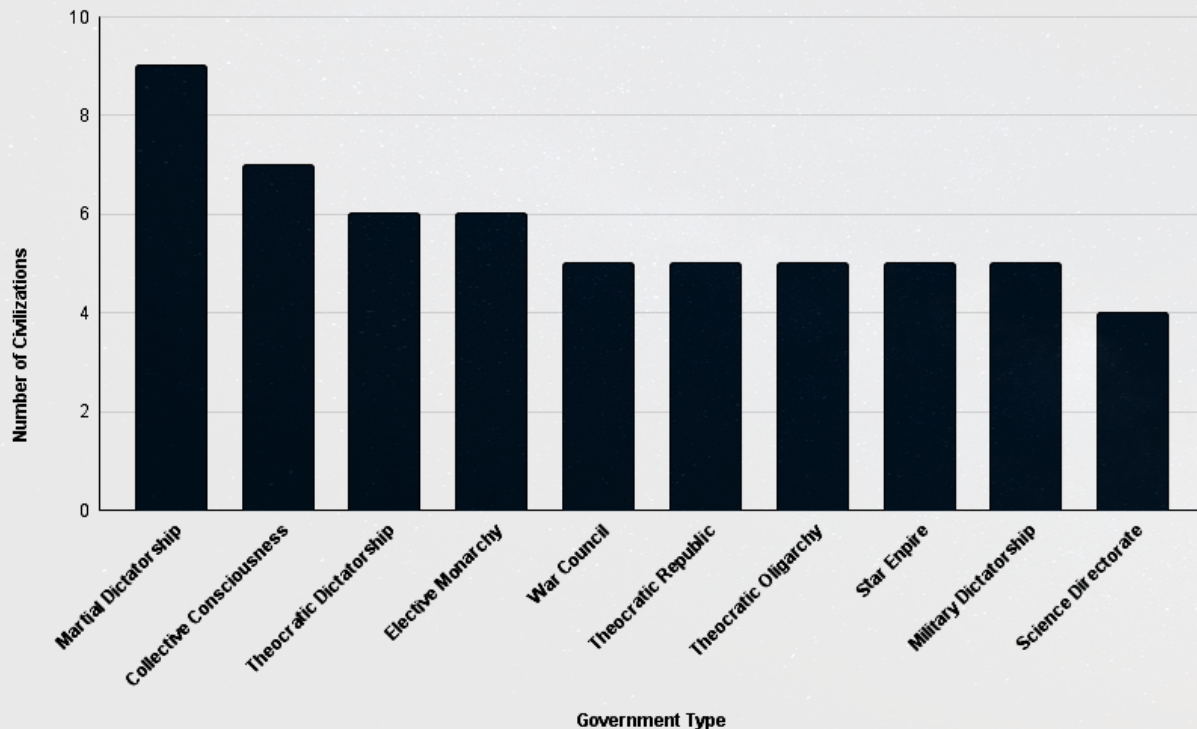
★ Out the total number of civilizations there is a clear leaning towards the more Authoritarian side

★ The chart is color coded from warmest color to coldest based on Authoritarian level

How the Galaxy Looks Like

- ★ A quick view of the most popular Government types shows that Authoritarian style gameplay is preferred

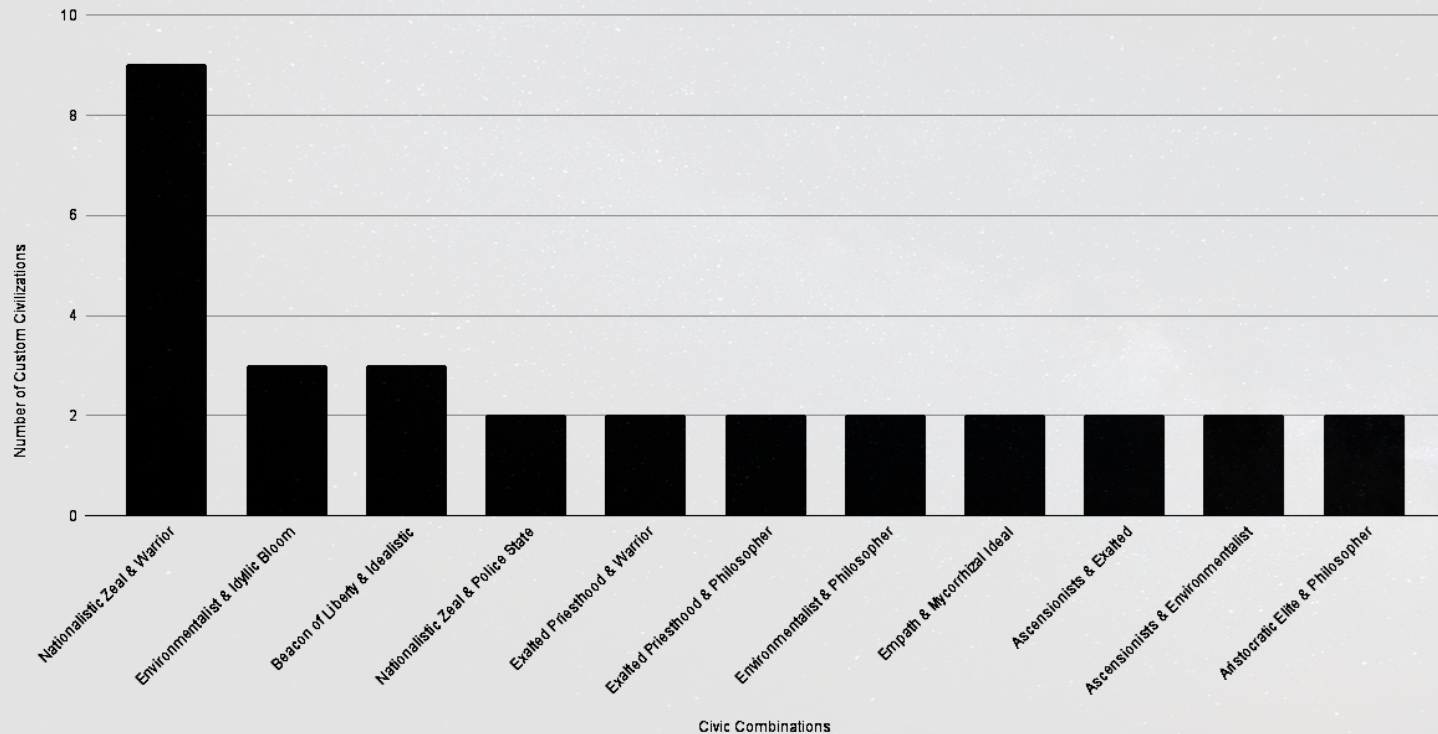
Top 10 most Popular Government Types



How the Galaxy Looks Like

★ Most picked
Civics show a
trend towards
more aggressive
gameplay

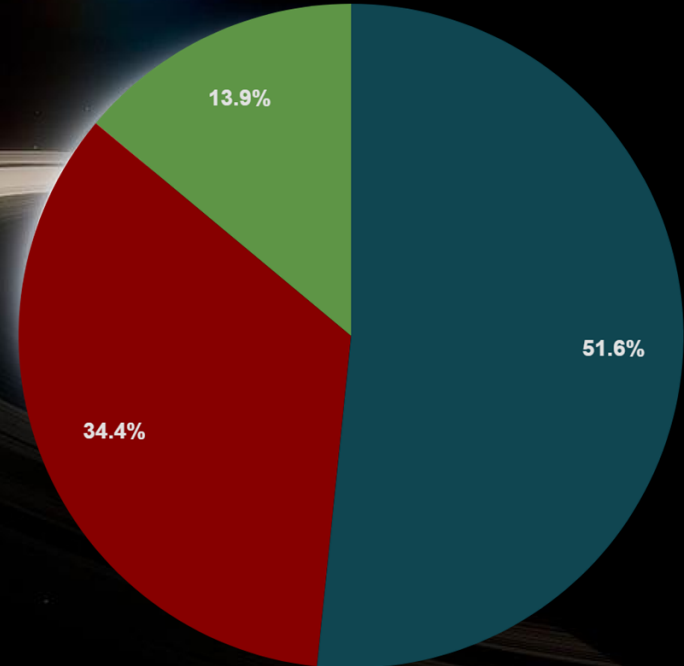
Top Picked Civics



Ethics in Space

Civilization Distribution by Ethic Point Usage

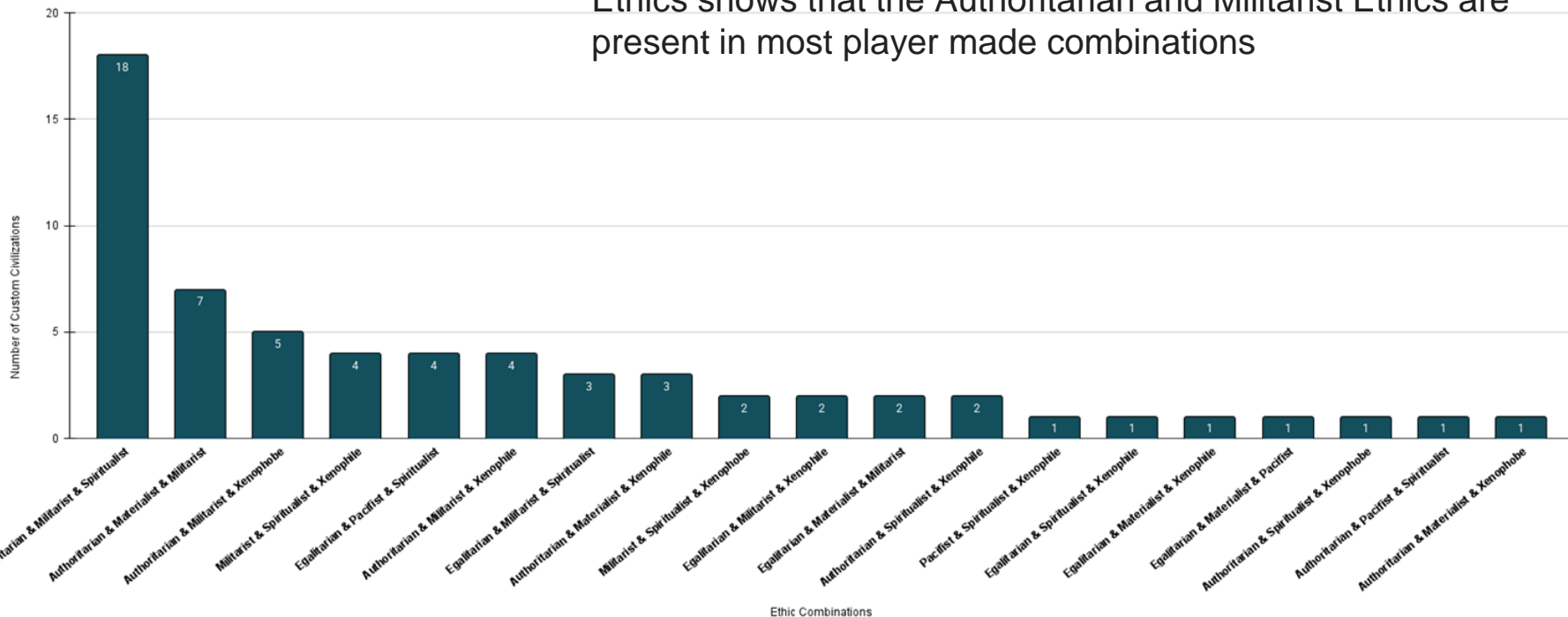
● Balanced
● Fanatical
● Gestalt



- ★ Ethics in-game come to define the playstyle of the player
- ★ Separating them by how the player spends their Ethic points, there is a leaning towards a more “Balanced” approach
- ★ This “Balanced” approach shows that players prefer combining Ethics and avoid “pigeon-holing”

Ethics in Space

Most Preferred Balance of Ethics



★ A deeper look into the most common combinations of Ethics shows that the Authoritarian and Militarist Ethics are present in most player made combinations

Gleamed Knowledge

- ★ Players seem to be heavily inspired from popular Sci-Fi franchises and Sci-Fi themes in general. Would recommend continuing to implement “Easter Eggs” from these sources to promote player engagement.
- ★ Players seem to favor the Authoritarian ethic, showing a tendency to avoid the internal politics mechanic. Would recommend further analysis on player gameplay.
- ★ The Militaristic ethic seems to be favoured in “Balanced” combinations. Would recommend further analysis into player gameplay.
- ★ A possible future DLC for the game, targeting internal governing systems in general or democratic systems in particular, would cover a currently underplayed playstyle.
- ★ Additionally, a DLC focused on combat and warfare would be well received and possibly very profitable as most players seem to engage in this playstyle.

Credit where credit is due

- ★ Paradox Development Studio - Producer of the video-game Stellaris
- ★ Paradox Interactive - publisher of the video-game Stellaris
- ★ pixabay(dot)com - source of the stock images used in the presentation
- ★ Google - for Sheets, Slides, Drive and Docs which were used in the making of this presentation and analysis