Video Sharing Website Analysis
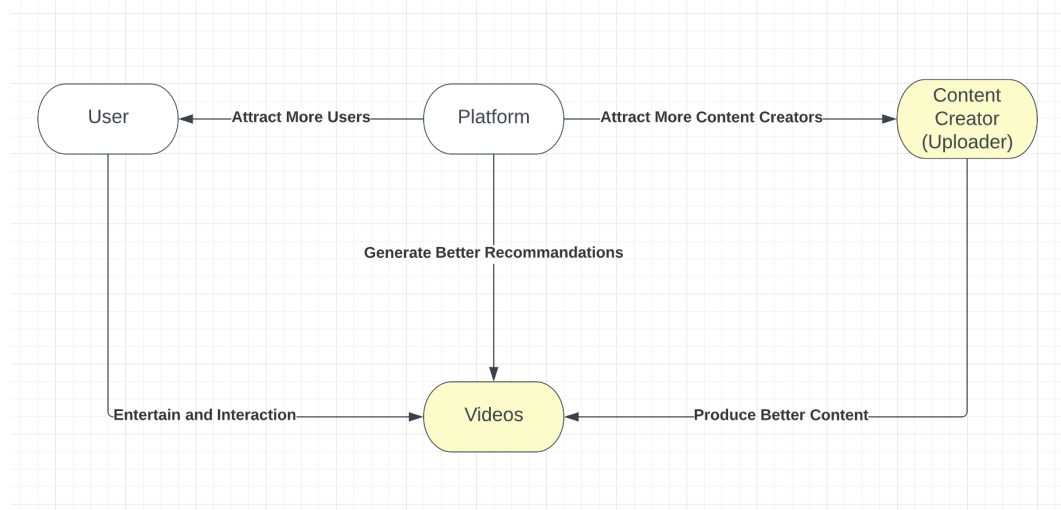
Fu Wang

Framework

- Pre-clean the raw data through Python and then import to SQL

- Manipulated relevant data in SQL to generate a suitable data frame

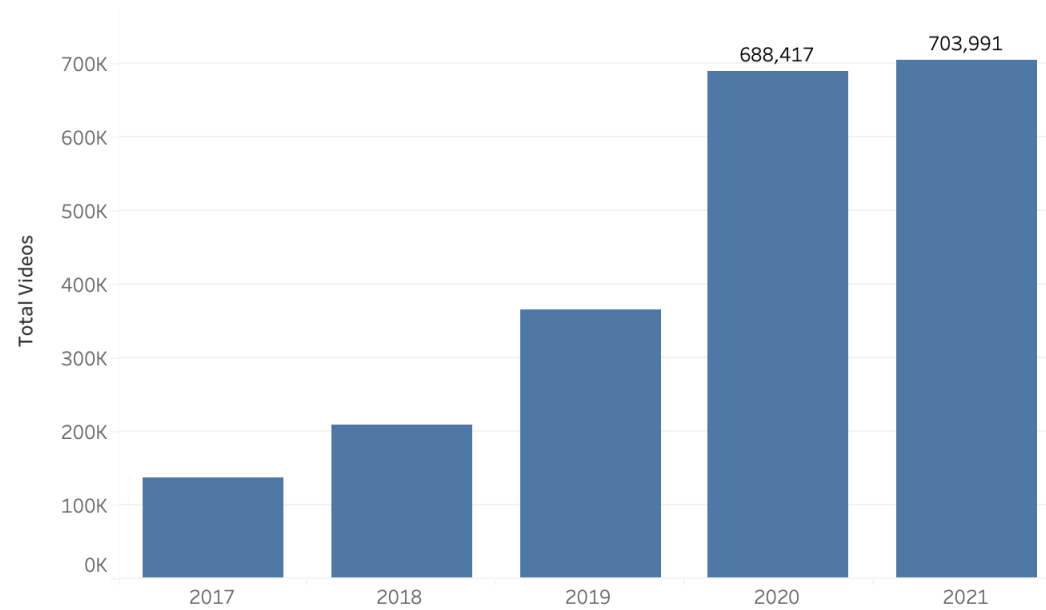- Connect database to tableau for visualization and dashboard
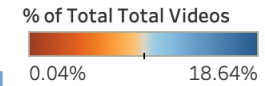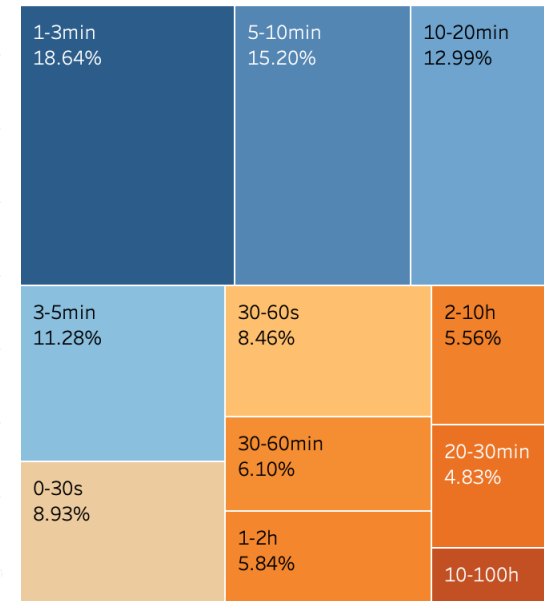
Business Idea

- **Objective**
  - Get more users and more content creators

- **Strategy**
  - Giving user more interesting contents
  - Positive reward and promotion for content creator

- **Metric**
  - Interaction Rate
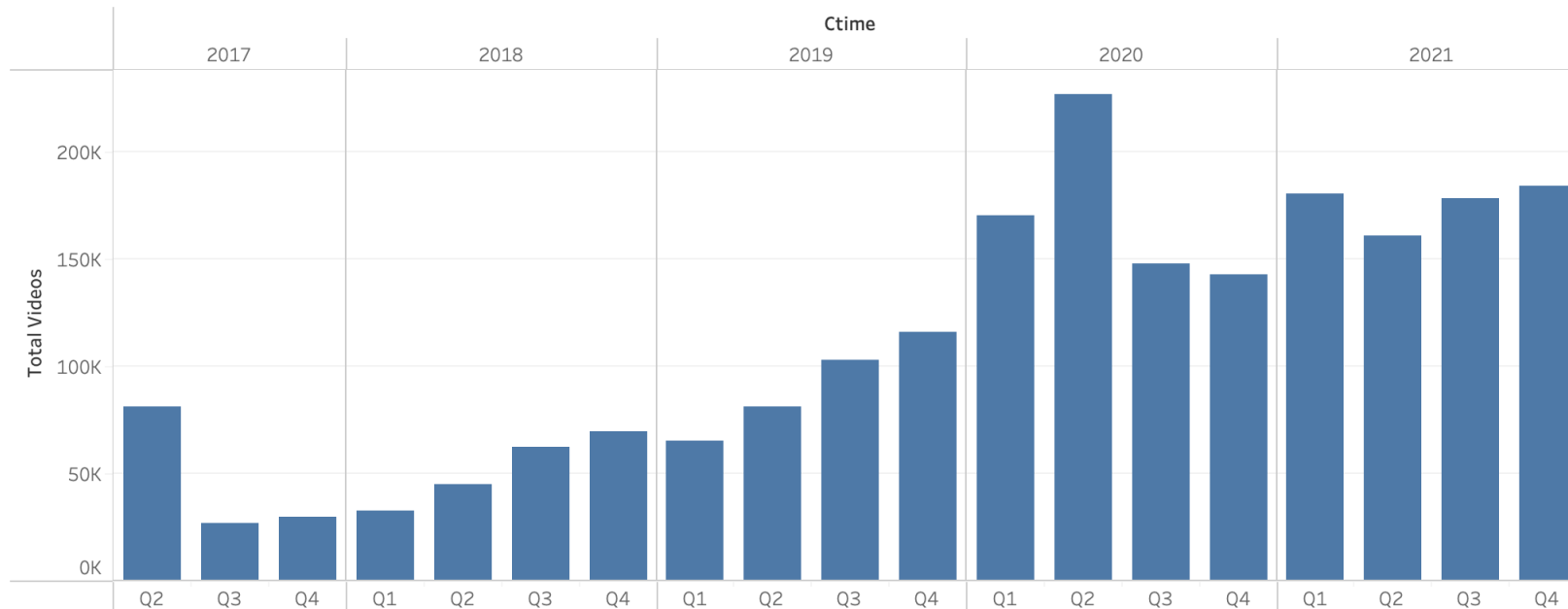 - Uploader active rate
  - Uploader increment

Video by Year

Duration Range over Total Video

% of Total Total Videos
0.04% — 18.64%

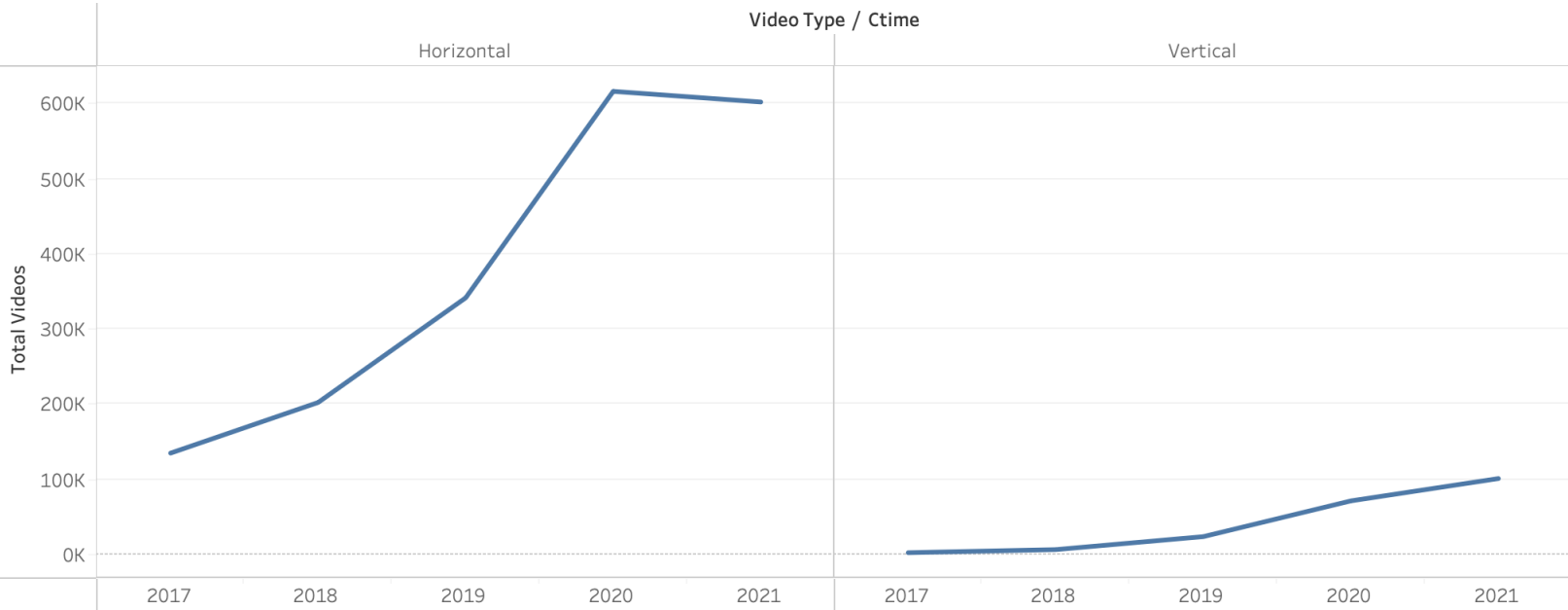|		
1-3min 18.64%	5-10min 15.20%	10-20min 12.99%
3-5min 11.28%	30-60s 8.46%	2-10h 5.56%
	30-60min 6.10%	20-30min 4.83%
0-30s 8.93%	1-2h 5.84%	10-100h

Videos by Quarters

Video Trend Analysis

1. We can see more and more uploaders are uploading videos over the years
2. The first two quarters in 2020 had a very large increment that was due to the others famous content creators from other platforms were stepping into this platform
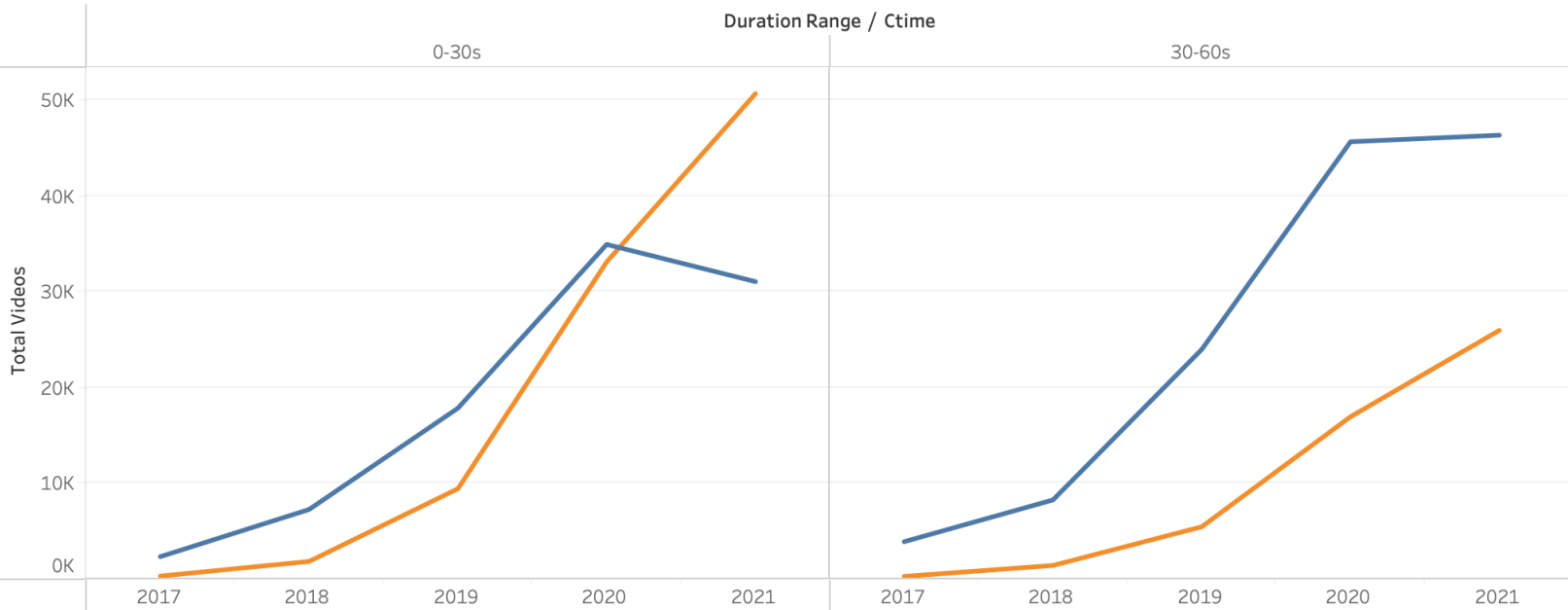3. Most videos are between 1 min and 20 min long

Vertical/ Horizontal over Year

Video Type / Ctime

Horizontal | Vertical

Duration over year by Type

Duration Range / Ctime

0-30s | 30-60s

Video Type
- Horizontal
- Vertical

Copyright
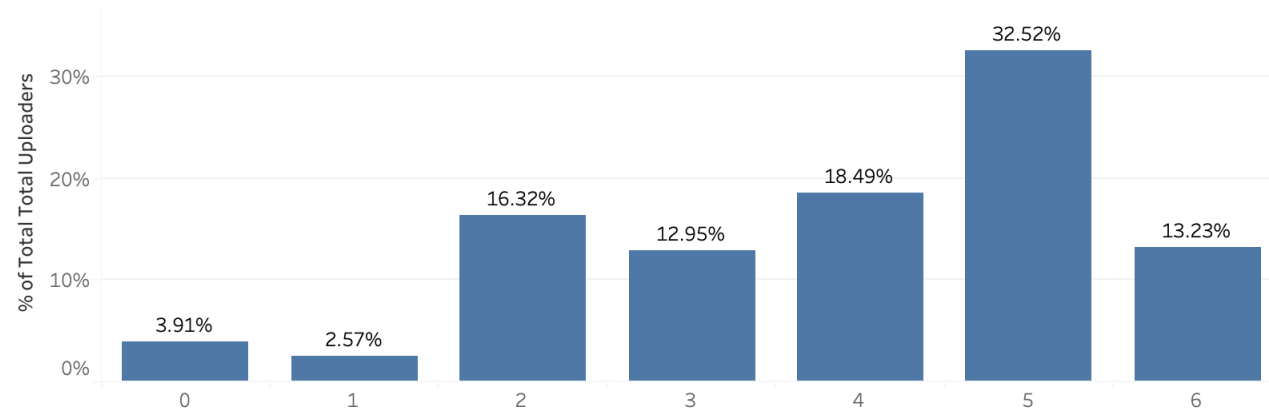
Copyright

80.10%

19.90%
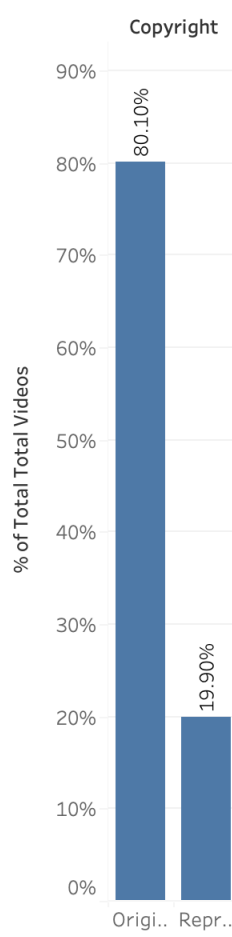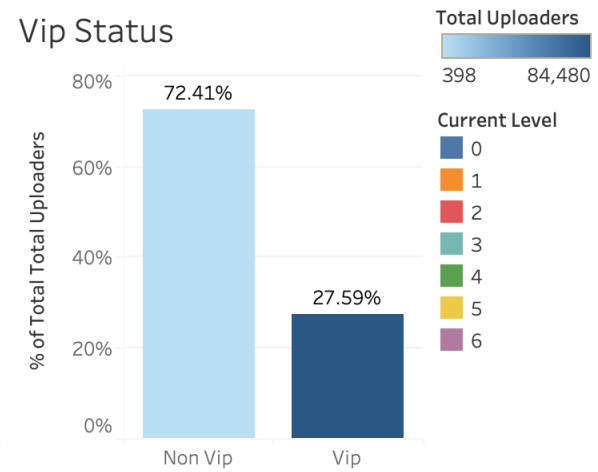
Copyright
- ☑ Original
- ☑ Reproduced

Video Type Analysis

1. The vertical type of videos keeps increasing over years suggesting that more and more ppl are creating and watching contents on their phones

2. The number of short videos are increasing over years as well, suggesting the raise of short video platforms like TikTok
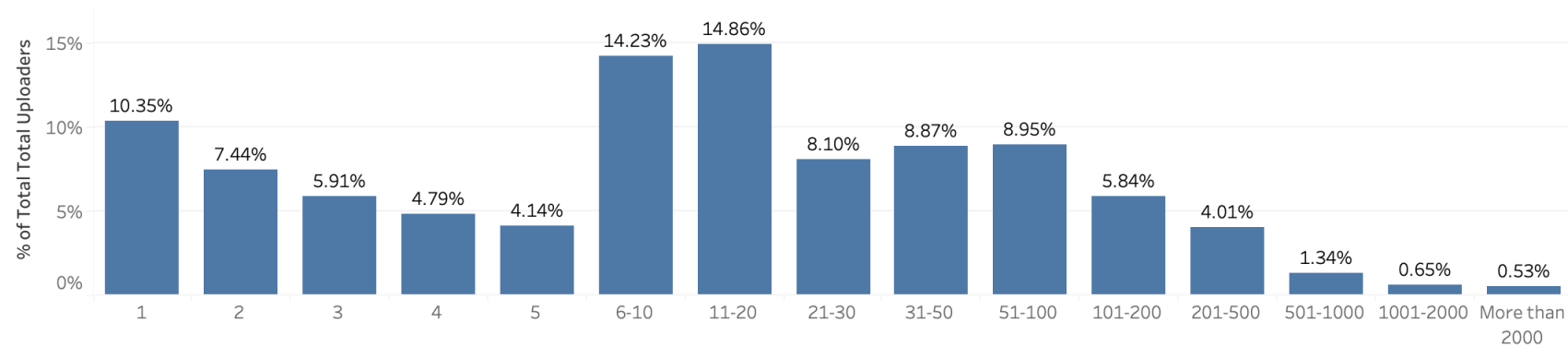
Uploader User Level

% of Total Total Uploaders

Level	0	1	2	3	4	5	6
%	3.91%	2.57%	16.32%	12.95%	18.49%	32.52%	13.23%

Vip Status

Total Uploaders
398 — 84,480

Current Level
- 0
- 1
- 2
- 3
- 4
- 5
- 6

% of Total Total Uploaders

Non Vip	Vip
72.41%	27.59%

Uploaded Video Numbers in %

% of Total Total Uploaders

1	2	3	4	5	6-10	11-20	21-30	31-50	51-100	101-200	201-500	501-1000	1001-2000	More than 2000
10.35%	7.44%	5.91%	4.79%	4.14%	14.23%	14.86%	8.10%	8.87%	8.95%	5.84%	4.01%	1.34%	0.65%	0.53%

Up Vs Level

Fan Range

% of Total Total Uploaders

0-10, 10-100 (11.37%), 100-1k (9.39%), 1-5k, 5-10k, 10-20k, 20-50k, 50-100k, 100-500k, 500k-1M, More than 1M (0.06%)

Uploader by Duration

% of Total Total Upload..

| 0-30s	30-60s	1-3min	3-5min	5-10min	10-20min	20-30min	30-60min	1-2h	2-10h	10-100h	More 100 hours
16.71%	18.41%	35.45%	26.76%	29.31%	23.74%	12.46%	13.39%	9.95%	8.54%	4.25%	0.17%

Uploader Analysis

1. Most Uploaders user level are between 2 and 5, level 5 has the highest percentage 32.52% correspond to 42.4% to be a VIP user

2. Level 6 uploaders have the highest fan group and usually uploaded 6 – 200 videos, and only level 6 have fan groups size more than 1 M
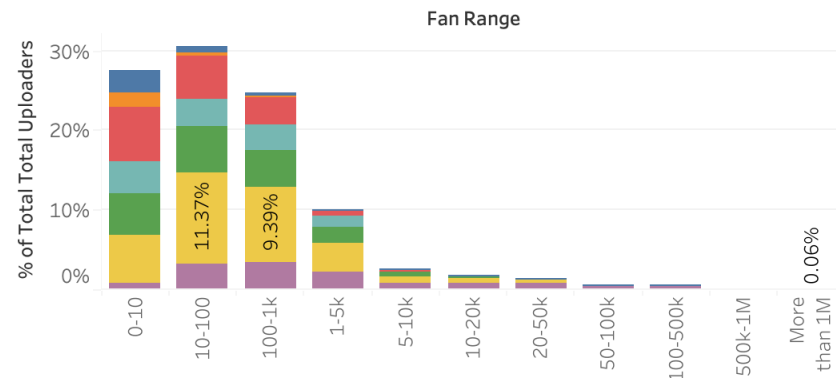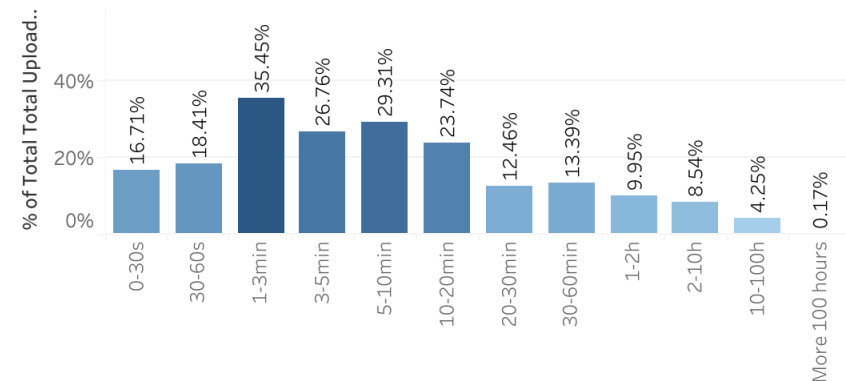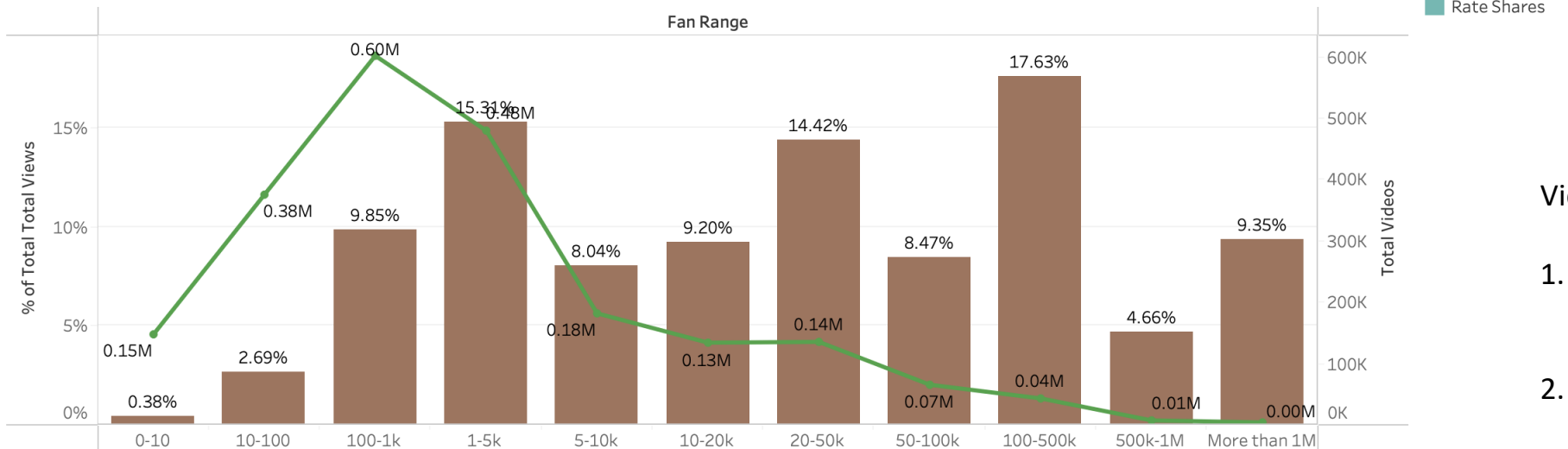
Total Stat

Total Uploaders	Total Videos Uploaded	Total Views	Total Favorites	Total Likes	Total Coins	Total Shares
238.30K	2.17M	9,484.59M	259.80M	228.19M	83.05M	31.59M

Measure Names
- Rate Favorites
- Rate Likes
- Rate Coins
- Rate Shares

Videos Uploaded Vs Views by Different Fan Group

Fan Range

Bar values (% of Total Total Views): 0.38%, 2.69%, 9.85%, 15.31%, 8.04%, 9.20%, 14.42%, 8.47%, 17.63%, 4.66%, 9.35%

Line values (Total Videos): 0.15M, 0.38M, 0.60M, 0.48M, 0.18M, 0.13M, 0.14M, 0.07M, 0.04M, 0.01M, 0.00M

Fan Range axis: 0-10, 10-100, 100-1k, 1-5k, 5-10k, 10-20k, 20-50k, 50-100k, 100-500k, 500k-1M, More than 1M

Interaction Rate Among Different Fan Size

Year of Cti..		0-10	10-100	100-1k	1-5k	5-10k	10-20k	20-50k	50-100k	100-500k
2019	Rate Likes	1.01%	0.79%	1.03%	1.38%	1.79%	1.80%	2.39%	2.55%	2.77%
	Rate Coins	.30%	0.26%	0.34%	0.56%	0.84%	0.85%	1.15%	1.38%	1.43%
	Rate Shares	.35%	0.27%	0.29%	0.32%	0.35%	0.37%	0.41%	0.38%	0.43%
2020	Rate Favori..	0.87%	1.31%	1.96%	2.66%	3.40%	3.25%	3.60%	2.70%	4.1
	Rate Likes	1.25%	1.23%	1.55%	1.89%	2.40%	2.42%	3.29%	2.86%	4.4
	Rate Coins	.33%	0.40%	0.51%	0.69%	0.98%	0.91%	1.20%	1.12%	1.91%
	Rate Shares	.38%	0.36%	0.35%	0.34%	0.37%	0.31%	0.39%	0.29%	0.46%
2021	Rate Favori..	1.14%	1.84%	3.16%	3.22%	3.73%	4.26%	2.96%	3.15%	1.85%
	Rate Likes	1.65%	1.96%	2.66%	2.64%	3.02%	3.19%	2.75%	3.74%	3.14
	Rate Coins	.53%	0.62%	0.76%	0.75%	0.91%	1.13%	0.83%	0.94%	0.73%
	Rate Shares	.38%	0.34%	0.41%	0.34%	0.34%	0.32%	0.24%	0.27%	0.12%

Value axis (per column): 0.0 0.1 0.1

Video/view Analysis

1. Original Video has more views than reproduced videos
2. Uploaders with more than 1M followers is less than 0.1% but contribute to 9.35% total views
3. Uploaders with followers less than 100 uploaded about 15% videos yet don't even receive 3% views

Interaction Rate Among Different Fan Size

Year of Cti..		Fan Range										
		0-10	10-100	100-1k	1-5k	5-10k	10-20k	20-50k	50-100k	100-500k	500k-1M	More than 1M
2018	Rate Favorites	0.87%	1.11%	1.77%	2.19%	2.42%	2.46%	2.94%	2.60%	3.31%	3.68%	3.45%
	Rate Likes	0.60%	0.59%	0.77%	0.81%	1.01%	0.96%	1.18%	1.12%	1.65%	1.66%	3.01%
	Rate Coins	0.24%	0.26%	0.31%	0.36%	0.46%	0.44%	0.61%	0.59%	1.17%	0.89%	1.71%
	Rate Shares	1.49%	0.67%	0.51%	0.43%	0.42%	0.35%	0.39%	0.34%	0.40%	0.42%	0.58%
2019	Rate Favorites	0.79%	1.05%	1.59%	2.46%	3.24%	3.51%	3.53%	4.16%	4.19%	4.11%	2.13%
	Rate Likes	1.01%	0.79%	1.03%	1.38%	1.79%	1.80%	2.39%	2.55%	2.77%	3.66%	3.69%
	Rate Coins	0.30%	0.26%	0.34%	0.56%	0.84%	0.85%	1.15%	1.38%	1.43%	2.12%	1.47%
	Rate Shares	0.35%	0.27%	0.29%	0.32%	0.35%	0.37%	0.41%	0.38%	0.43%	0.42%	0.42%
2020	Rate Favorites	0.87%	1.31%	1.96%	2.66%	3.40%	3.25%	3.60%	2.70%	4.14%	3.67%	2.41%
	Rate Likes	1.25%	1.23%	1.55%	1.89%	2.40%	2.42%	3.29%	2.86%	4.47%	4.63%	5.35%
	Rate Coins	0.33%	0.40%	0.51%	0.69%	0.98%	0.91%	1.20%	1.12%	1.91%	1.71%	1.62%
	Rate Shares	0.38%	0.36%	0.35%	0.34%	0.37%	0.31%	0.39%	0.29%	0.46%	0.59%	0.43%
2021	Rate Favorites	1.14%	1.84%	3.16%	3.22%	3.73%	4.26%	2.96%	3.15%	1.85%	4.17%	0.65%
	Rate Likes	1.65%	1.96%	2.66%	2.64%	3.02%	3.19%	2.75%	3.74%	3.14%	6.57%	4.03%
	Rate Coins	0.53%	0.62%	0.76%	0.75%	0.91%	1.13%	0.83%	0.94%	0.73%	2.87%	0.67%
	Rate Shares	0.38%	0.34%	0.41%	0.34%	0.34%	0.32%	0.24%	0.27%	0.12%	0.26%	0.16%

Measure Names
- ■ Rate Favorites
- ■ Rate Likes
- ■ Rate Coins
- ■ Rate Shares

(x-axis per column: 0.00 0.05 0.10 — Value)

Rate Favorites, Rate Likes, Rate Coins and Rate Shares for each Ctime Year broken down by Fan Range. Color shows details about Rate Favorites, Rate Likes, Rate Coins and Rate Shares. The data is filtered on Copyright and Average Duration. The Copyright filter keeps Original and Reproduced. The Average Duration filter keeps 12 members. The view is filtered on Fan Range, which keeps 11 of 11 members.

Interaction Analysis

1. When the uploaders' followers are more than 10k, the interaction rate is getting better noticeably.
2. When the uploader's have followers' range between 5k and 500k, they have more favorites than likes, this is due to the fact their contents are more in depth than for general users
3. Uploaders with more than 500k followers tend to have contents fitting for common audiences' tastes

Ratio Stat

Rate Favorit..	Rate Likes	Rate Shares	Rate Coins
2.74%	2.41%	0.33%	0.88%

AVG Compare Dot

Fan Range
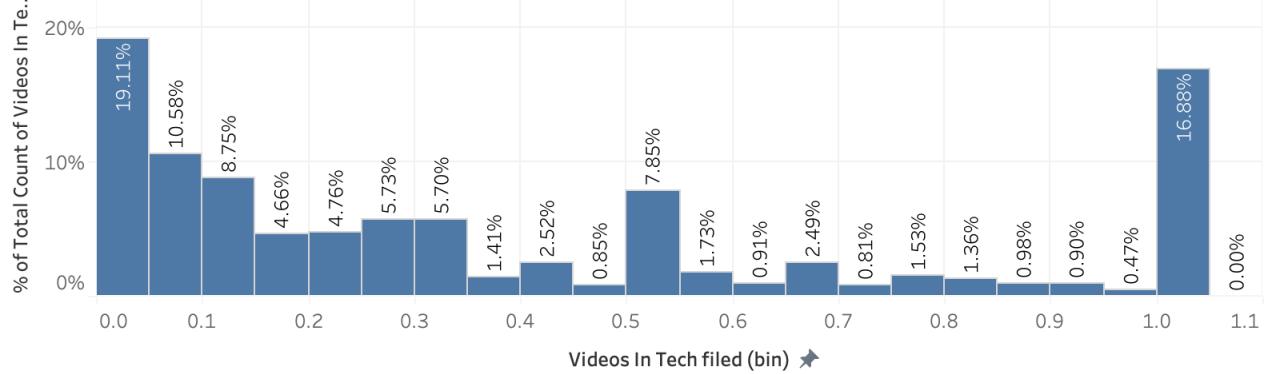
Video Type

Copyright
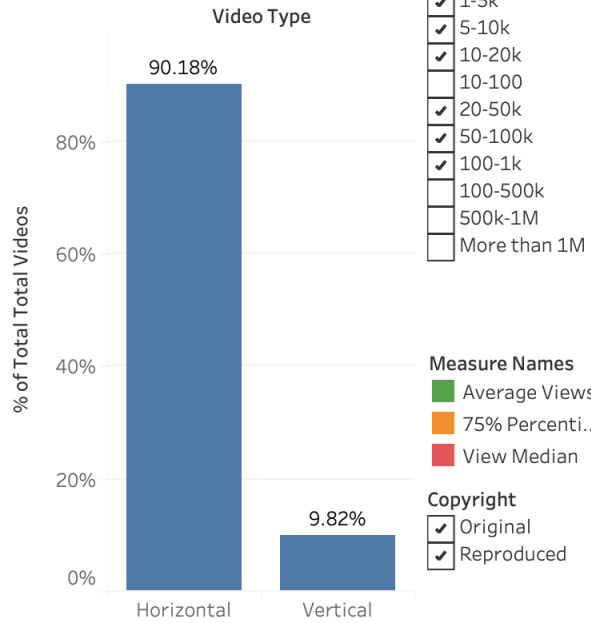
Videos in tech fields

Uploader Analysis

1. Strong Matthew effect can be seen here that the average views per Video is much higher than the 75 percentile and median of views

2. More than half of the uploaders are not focused on the tech fields and only 35.9% uploaders are the main content creator

Next Year Active Uploader

Ctime

	2017	2018	2019	2020	2021

- 2017: Active Uploader 4,684 · Total Uploaders 27,449 · Next Year Active Rate 17.06%
- 2018: Active Uploader 8,210 · Total Uploaders 29,599 · Next Year Active Rate 27.74%
- 2019: Active Uploader 16,253 · Total Uploaders 57,184 · Next Year Active Rate 28.42%
- 2020: Active Uploader 19,625 · Total Uploaders 103,507 · Next Year Active Rate 18.96%
- 2021: Active Uploader 8,400 · Total Uploaders 71,896 · Next Year Active Rate 11.68%

Active User
- Active Uploader
- Total Uploaders
- Next Year Active Rate

Measure Names
- New Uploader
- Total Uploaders
- Uploader Change Rate

New Uploader Vs Total Uploader

Ctime

- 2018: New Uploader 50,452 · Total Uploaders 29,599 · Uploader Change Rate 77.15%
- 2019: New Uploader 98,595 · Total Uploaders 57,184 · Uploader Change Rate 78.04%
- 2020: New Uploader 181,432 · Total Uploaders 103,507 · Uploader Change Rate 79.34%
- 2021: New Uploader 146,001 · Total Uploaders 71,896 · Uploader Change Rate 91.92%
- 2022: New Uploader 14,905 · Total Uploaders 13,135 · Uploader Change Rate 51.36%

Monthly Active Uploader

Ctime
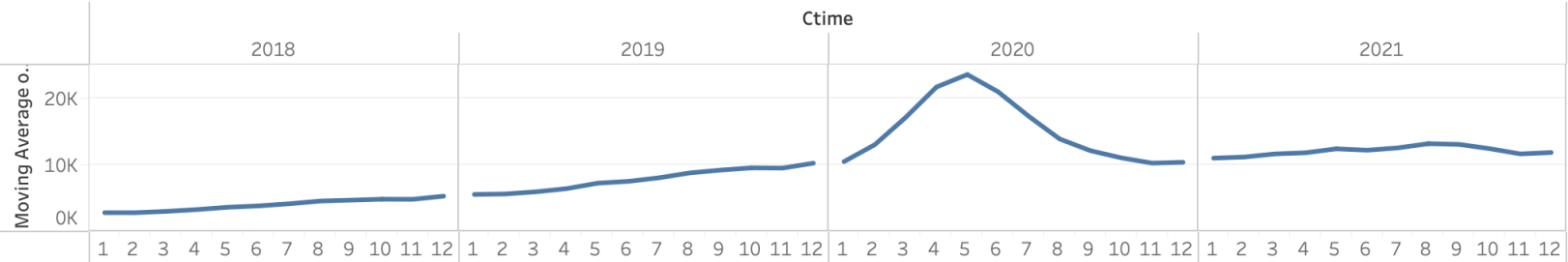
2018	2019	2020	2021

Uploader Analysis

1. In the year 2017, 2018, 2019, the rate of uploaders remain still activate is increasing
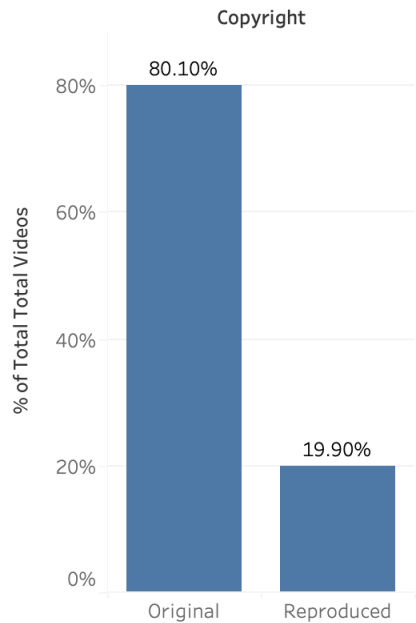2. In the year of 2018, 2019, 2020, 2021 we can see more and more content creator are joining in the community
3. This suggests the platform, is lacking in certain perspectives to keep uploaders stay activate

Uploaded Video Numbers in %

Chart 1 data labels (blue — Average Life Cycle): 61.3, 84.3, 102.7, 126.4, 169.3, 229.9, 288.8, 347.8, 425.7, 528.2, 588.3, 671.5, 671.8, 711.5

Chart 1 data labels (red — Median Uploaded): 2.1, 6.0, 11.4, 21.0, 44.6, 90.5, 157.9, 230.2, 328.1, 452.9, 512.1, 619.6, 660.9, 687.1

X-axis: 2, 3, 4, 5, 6-10, 11-20, 21-30, 31-50, 51-100, 101-2.., 201-5.., 501-1.., 1001-.., More than..

LC Summary

Average Life Cycle	208
Avg Video Uploaded per LC	26
Median Life Cycle	52
Median Video Uploaded	5
Total Uploaders	48,827
Uploader Percent	20.49%

Avg. Uploader Li..
61.276597475 t..

Videos In Tech fi..
0.49 to 1
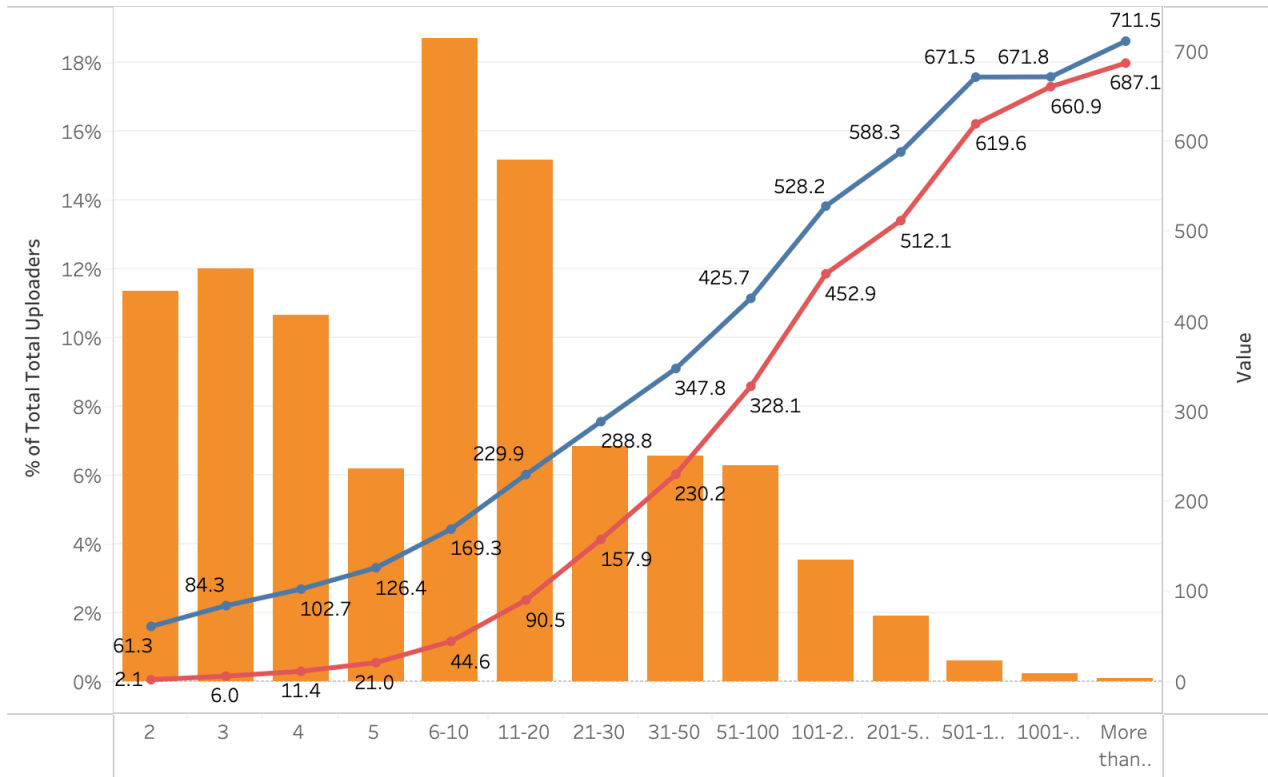
Videos by Uploa..
2 to 17365
and Null values
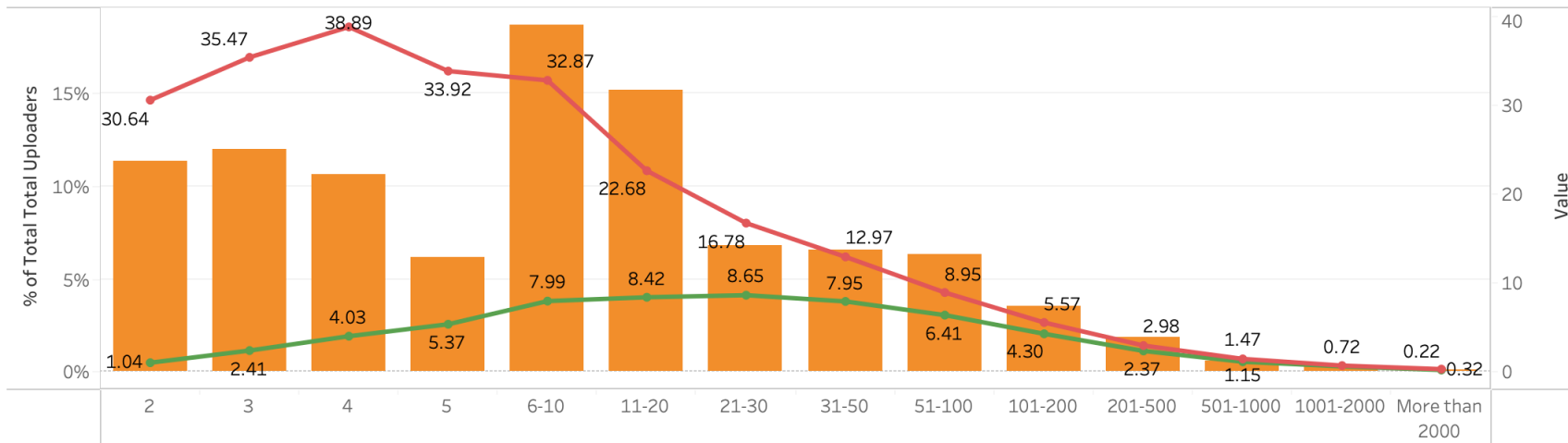
Measure Names
- Average Life..
- % of Total T..
- Median Uplo..

Ave LC by Year

	Ctime	
Archived	2017	2018
2	33.3	3
3	56.3	7
4	83.8	9
5	101.5	11
6-10	130.3	17
11-20	207.7	25
21-30	263.1	31
31-50	333.7	40
51-100	384.3	48
101-200	447.6	53

Uploader Analysis

1. Here we focus on uploader who uploaded more one videos and are the main content creator in tech field
2. We can see when they uploaded more than 30 vides, they are more likely to keep staying in the platform and keep creating content
3. When they have more work uploaded, they will have a higher tendency to create work in a fast pace

Uploaded Video Numbers in %

Chart 2 data labels (red): 30.64, 35.47, 38.89, 33.92, 32.87, 22.68, 16.78, 12.97, 8.95, 5.57, 2.98, 1.47, 0.72, 0.22

Chart 2 data labels (green): 1.04, 2.41, 4.03, 5.37, 7.99, 8.42, 8.65, 7.95, 6.41, 4.30, 2.37, 1.15, 0.32

X-axis: 2, 3, 4, 5, 6-10, 11-20, 21-30, 31-50, 51-100, 101-200, 201-500, 501-1000, 1001-2000, More than 2000

Ave LC by Year

<div align="center">Ctime</div>

Archived	2017	2018	2019	2020	2021	2022	Grand Total
2	33.3	34.7	29.8	24.9	42.8	50.9	**19.1**
3	56.3	77.0	60.0	46.0	74.0	90.5	**35.1**
4	83.8	93.1	78.9	61.8	98.9	121.0	**46.7**
5	101.5	118.8	100.1	76.4	120.8	131.5	**57.1**
6-10	130.3	176.8	136.2	109.9	152.5	174.6	**78.2**
11-20	207.7	253.2	208.8	163.5	213.1	233.3	**113.3**
21-30	263.1	317.0	264.5	211.5	252.5	313.9	**142.2**
31-50	333.7	405.5	336.8	261.9	308.3	381.9	**176.0**
51-100	384.3	485.4	403.5	315.5	368.7	453.9	**210.7**
101-200	447.6	535.1	474.2	371.5	403.2	570.9	**242.5**
201-500	526.9	622.7	521.3	424.0	395.1	680.1	**262.9**
501-1000	549.7	684.1	591.0	484.2	405.5	796.5	**284.3**
1001-2000	550.8	657.7	609.0	466.5	299.9	741.8	**254.4**
More than 2000	576.7	710.4	651.8	488.5	236.1	561.7	**234.5**
Grand Total	**254.5**	**325.9**	**262.3**	**198.9**	**242.3**	**358.9**	**126.5**

This is the life cycle average for uploaders with different archived file numbers including grand totals.

Interesting Finding

The average in each columns are all larger than the Grand Total Average