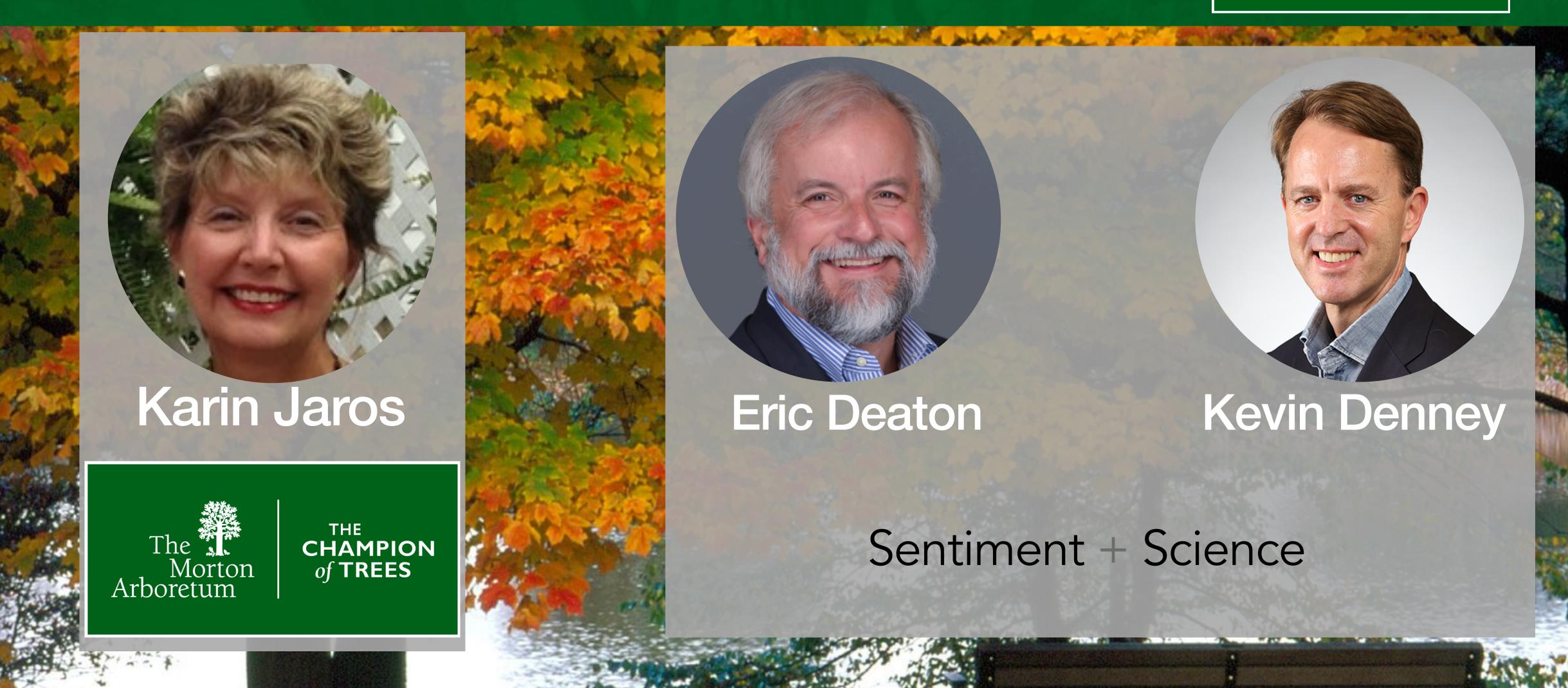




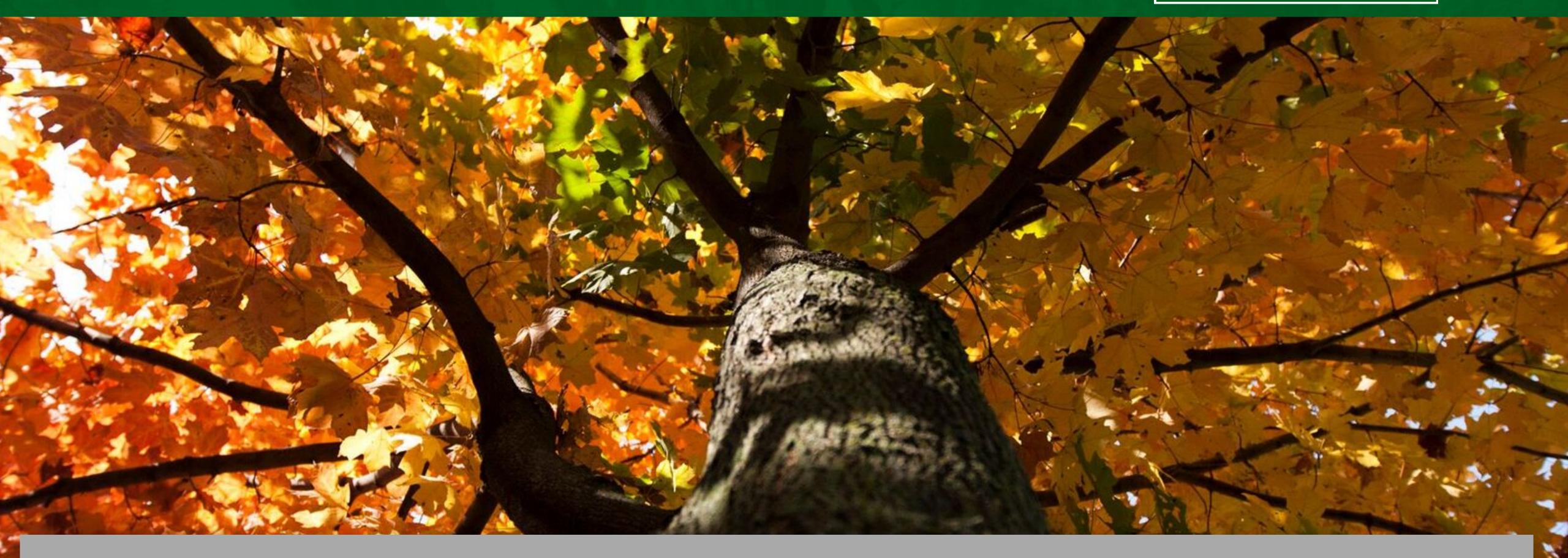
SPEAKERS





Sentiment Analysis





Enhance your membership program

















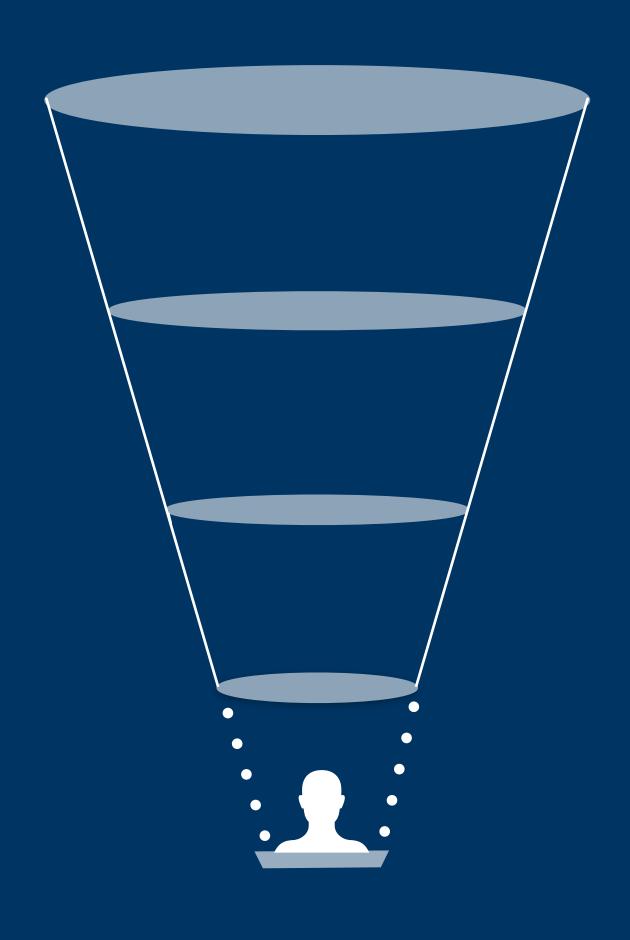




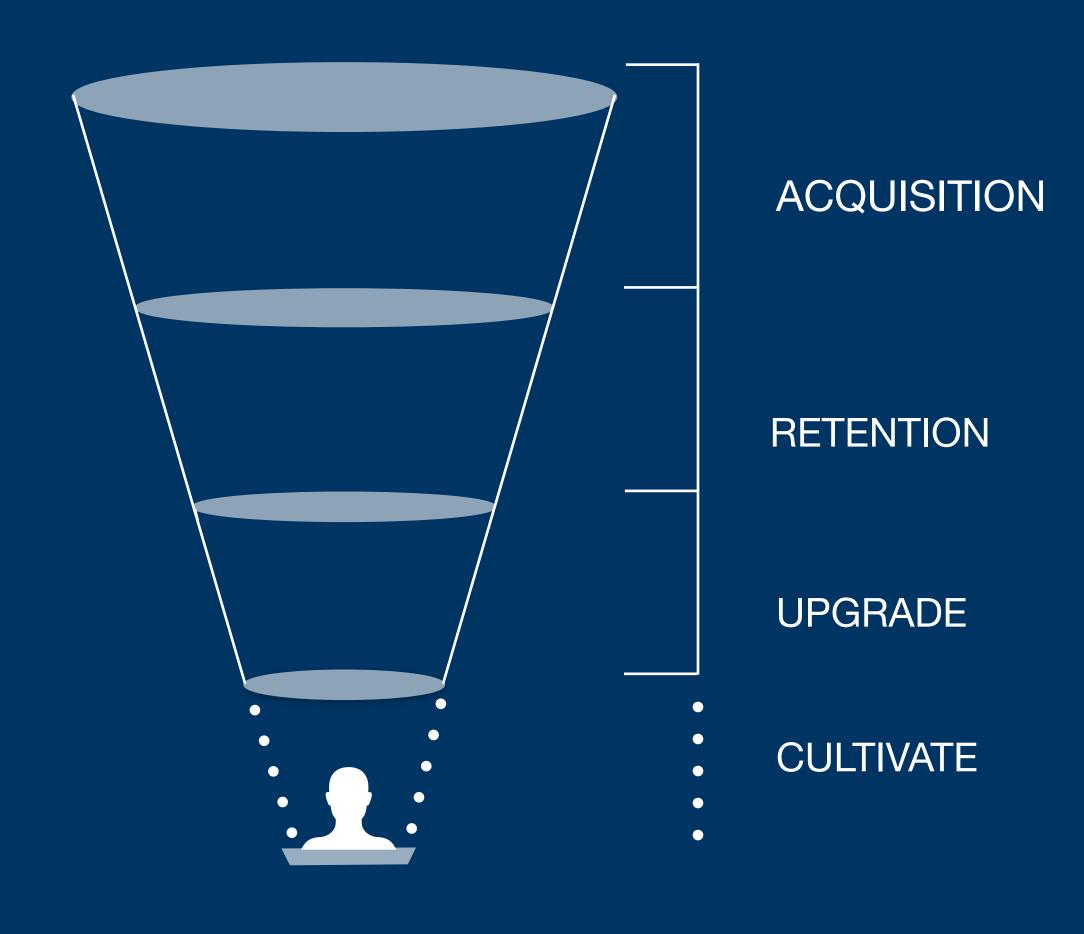




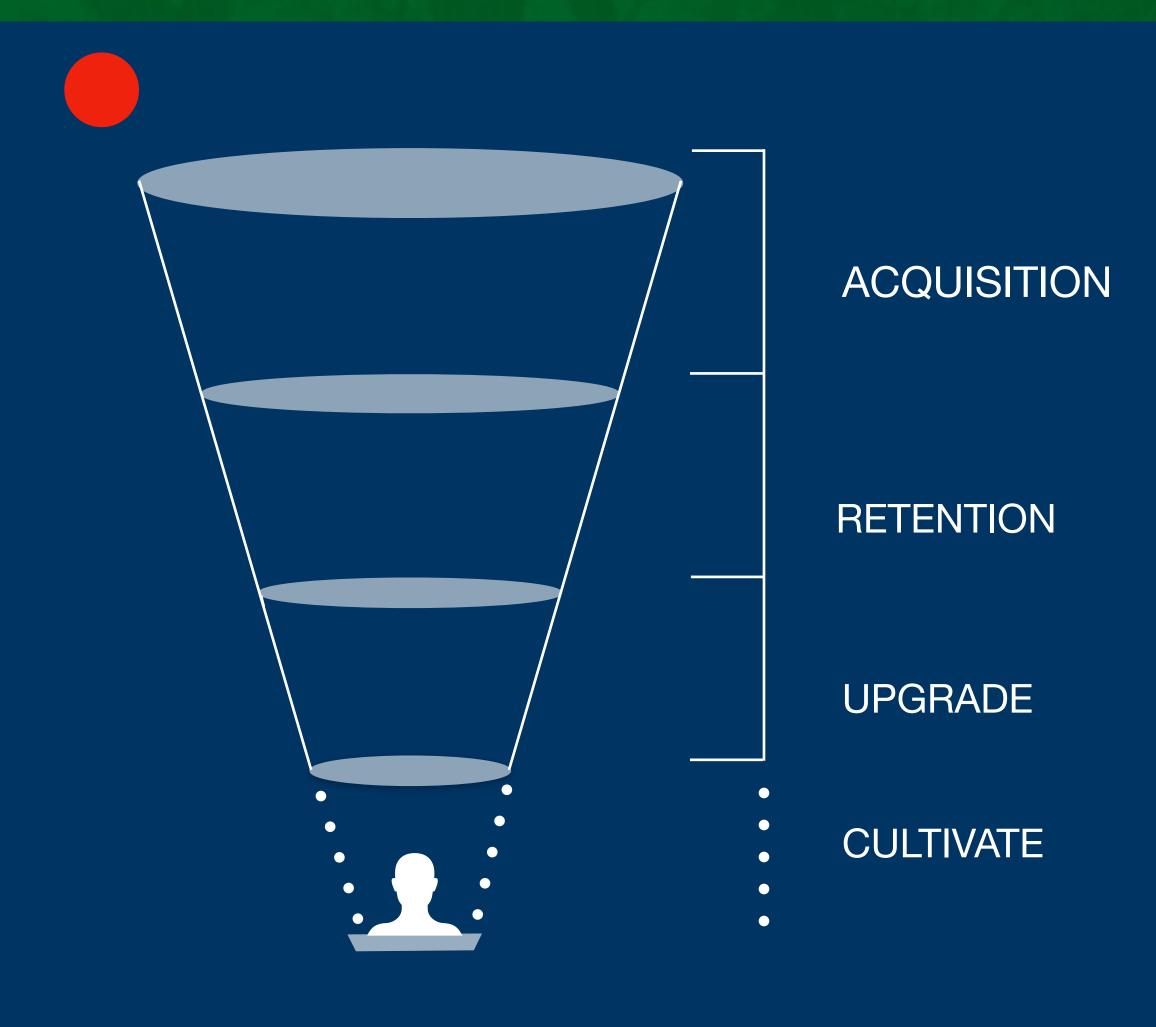




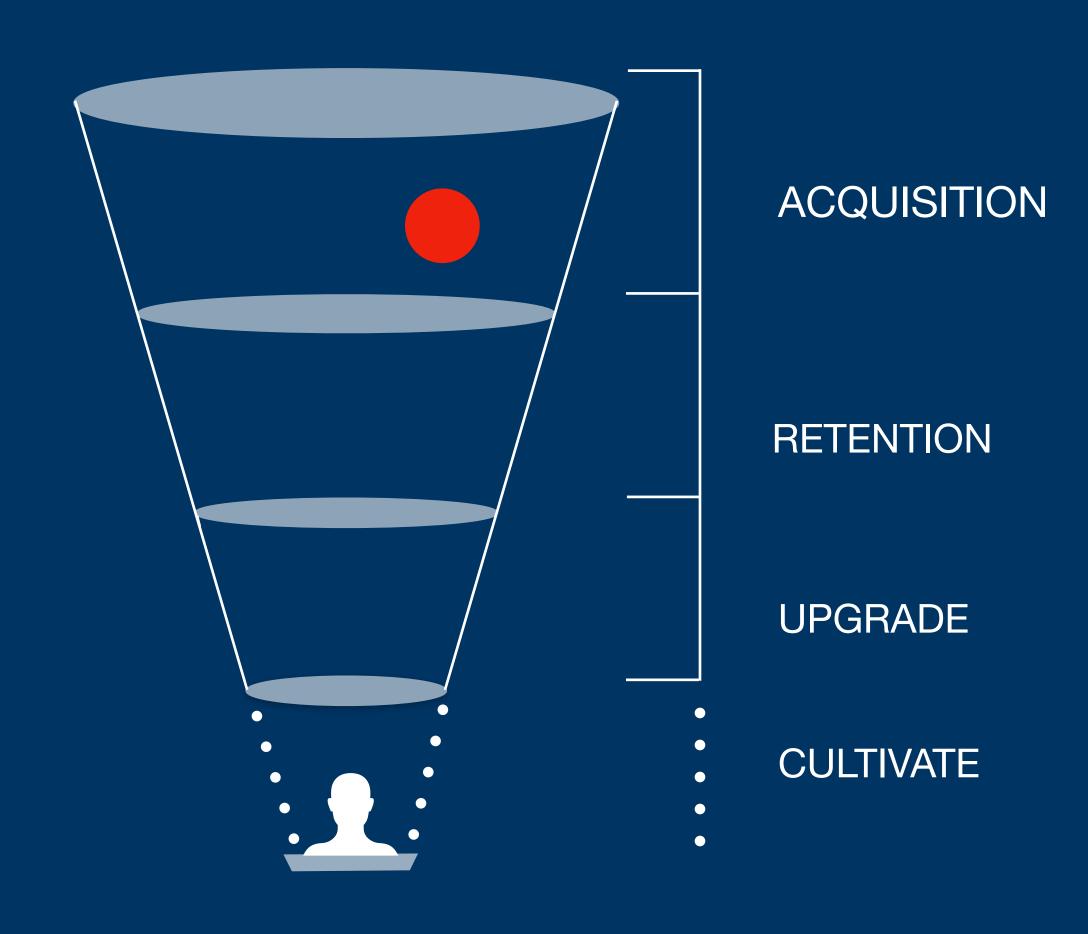




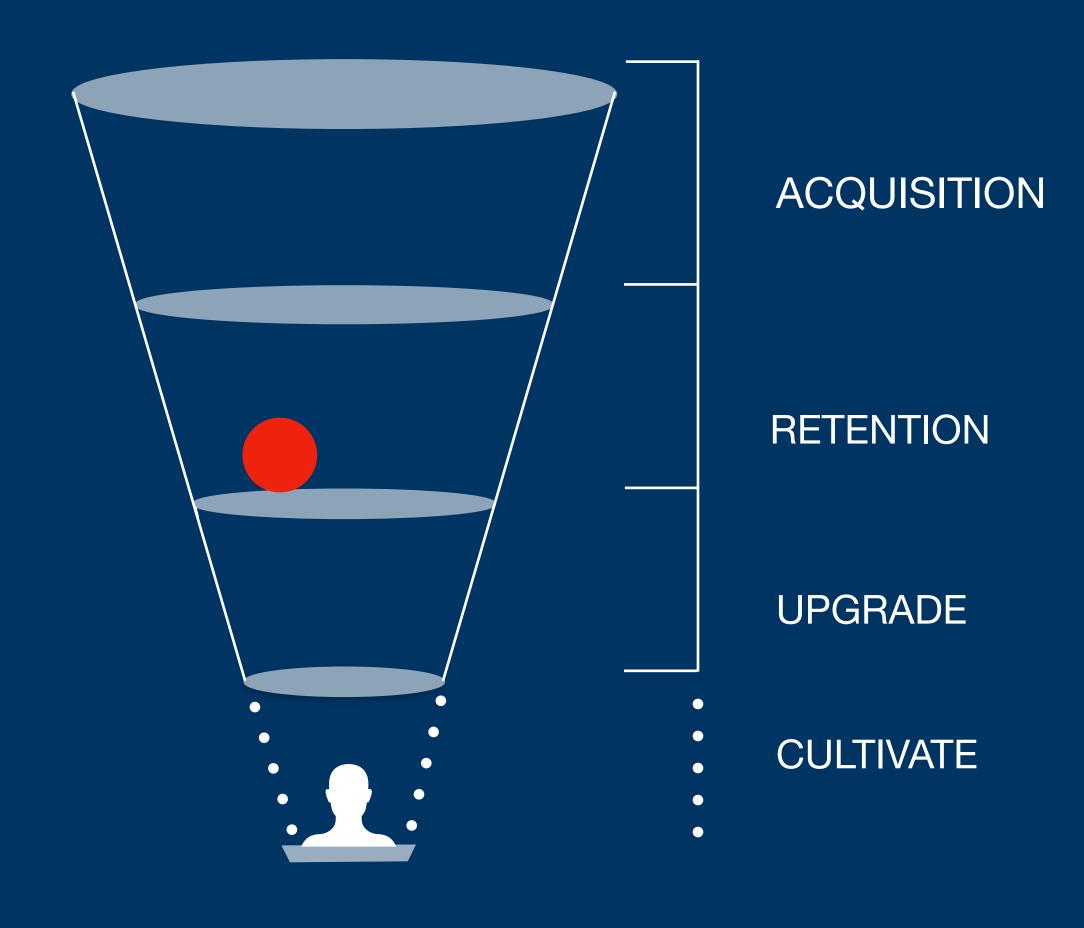




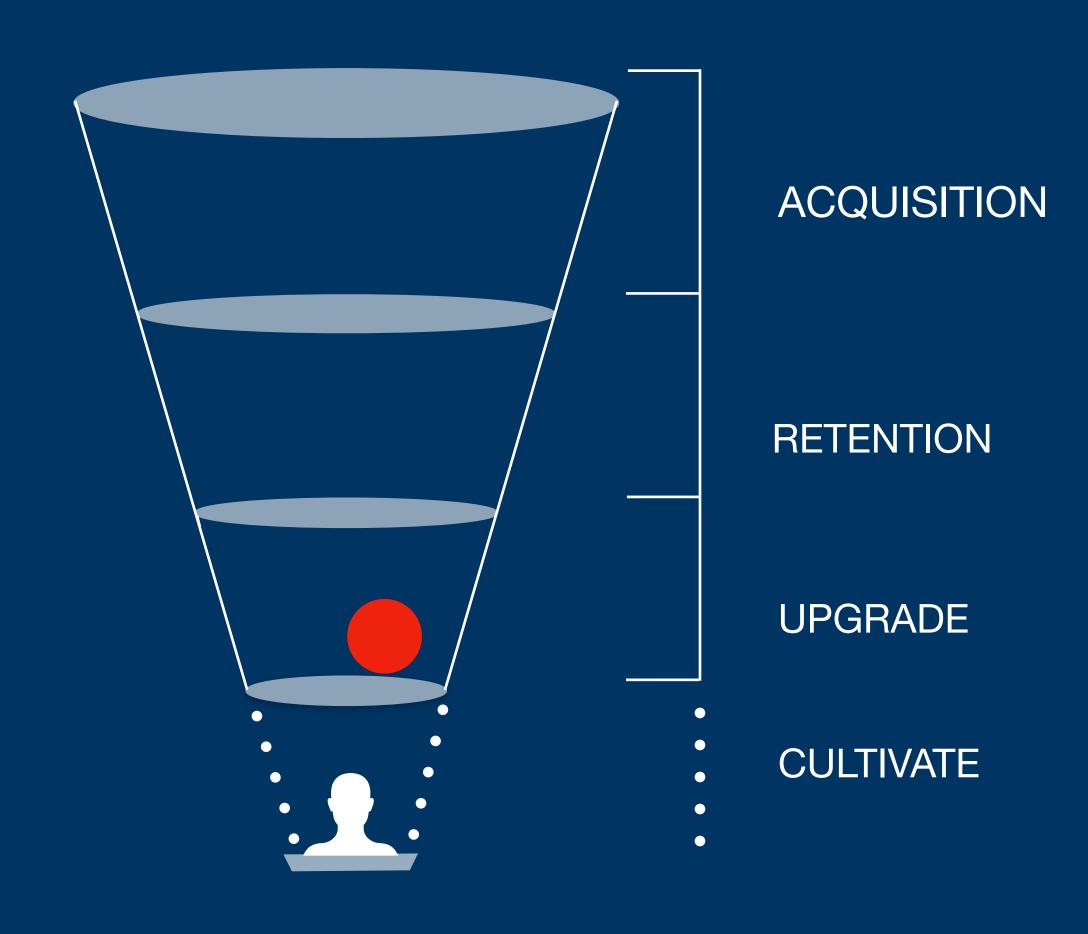




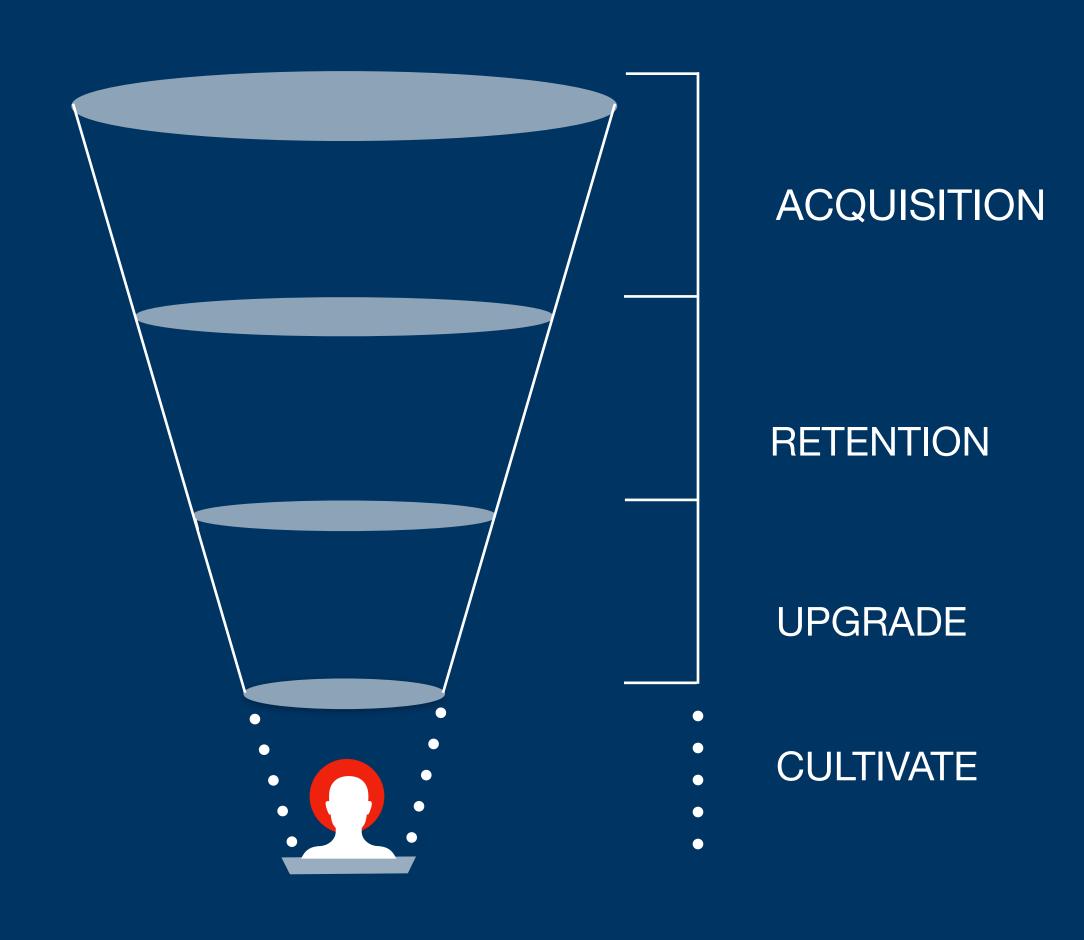




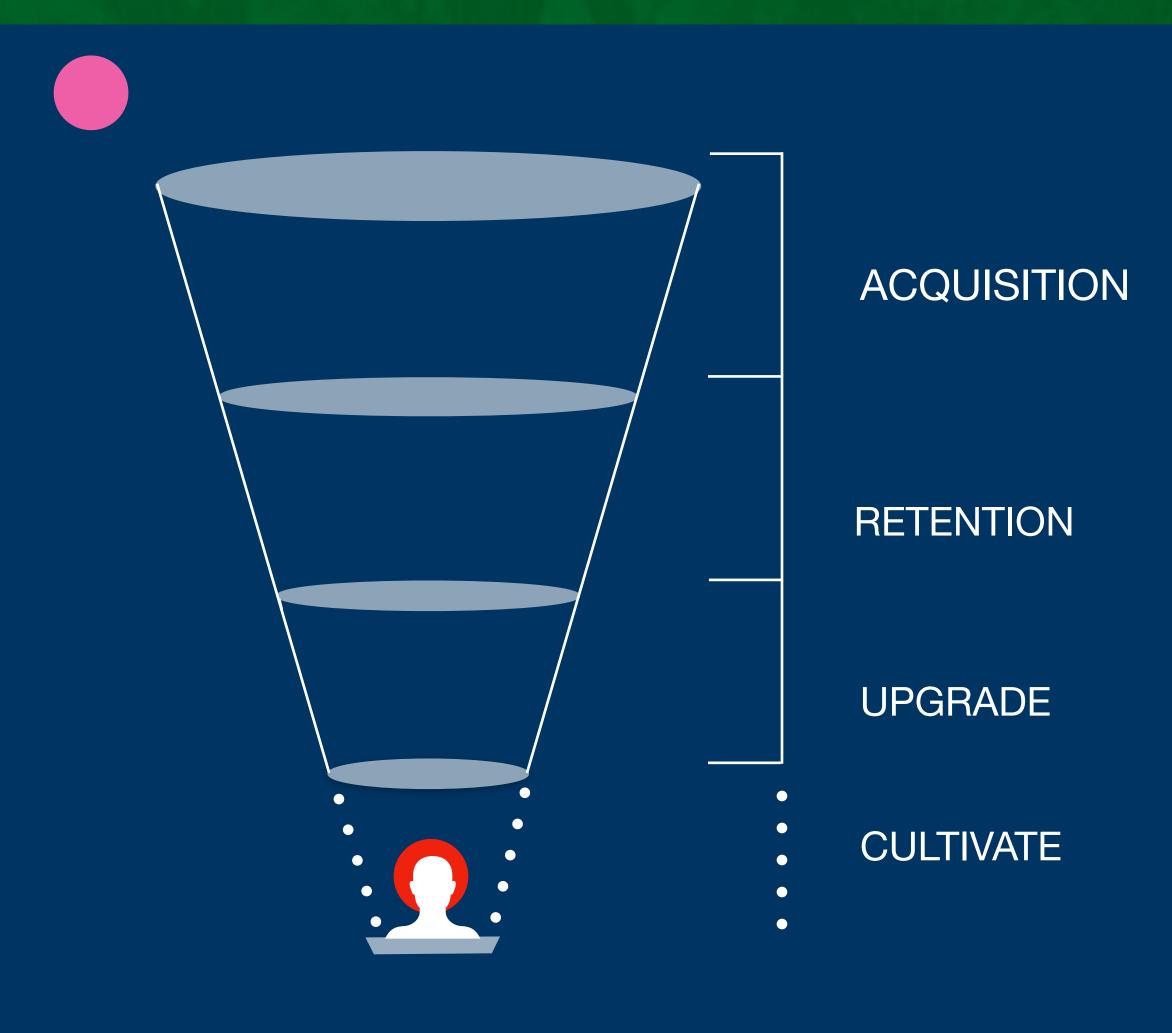




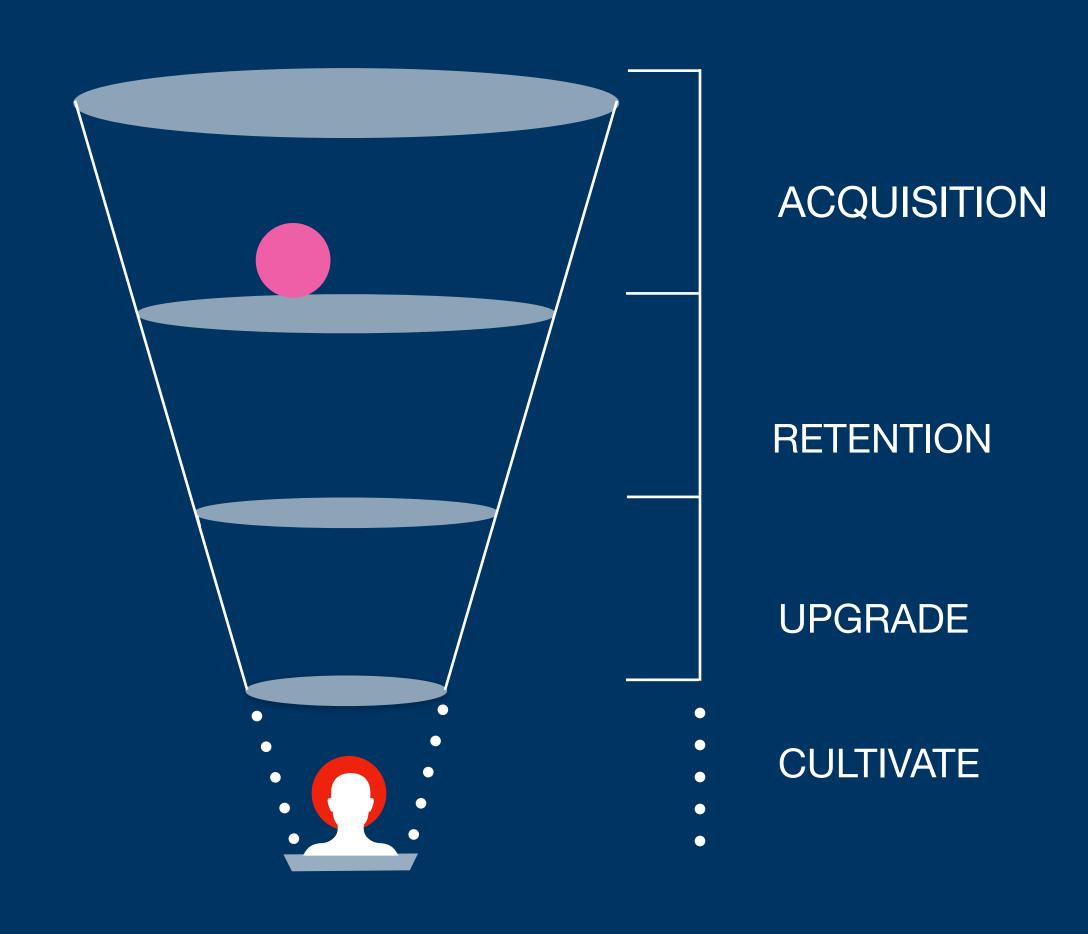




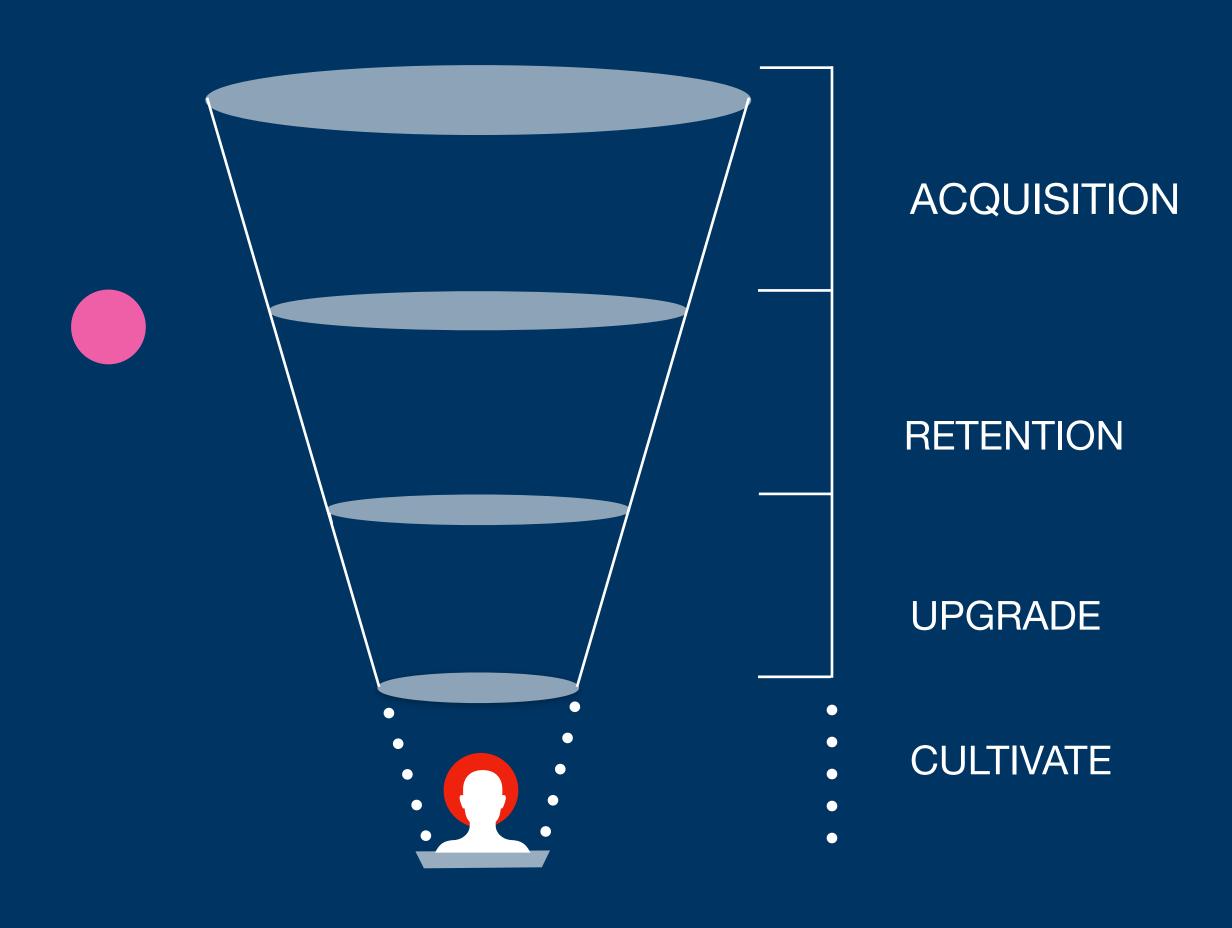




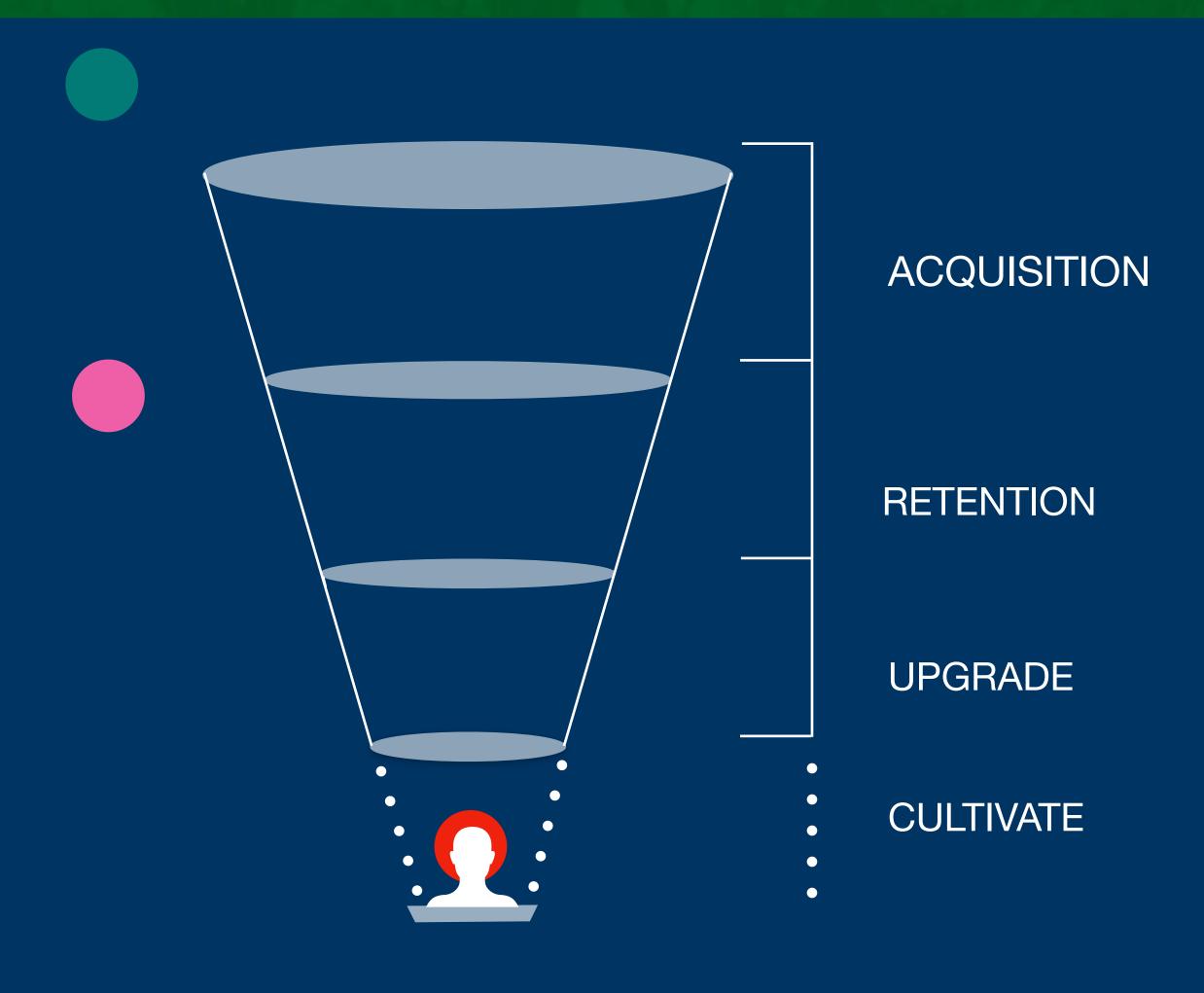




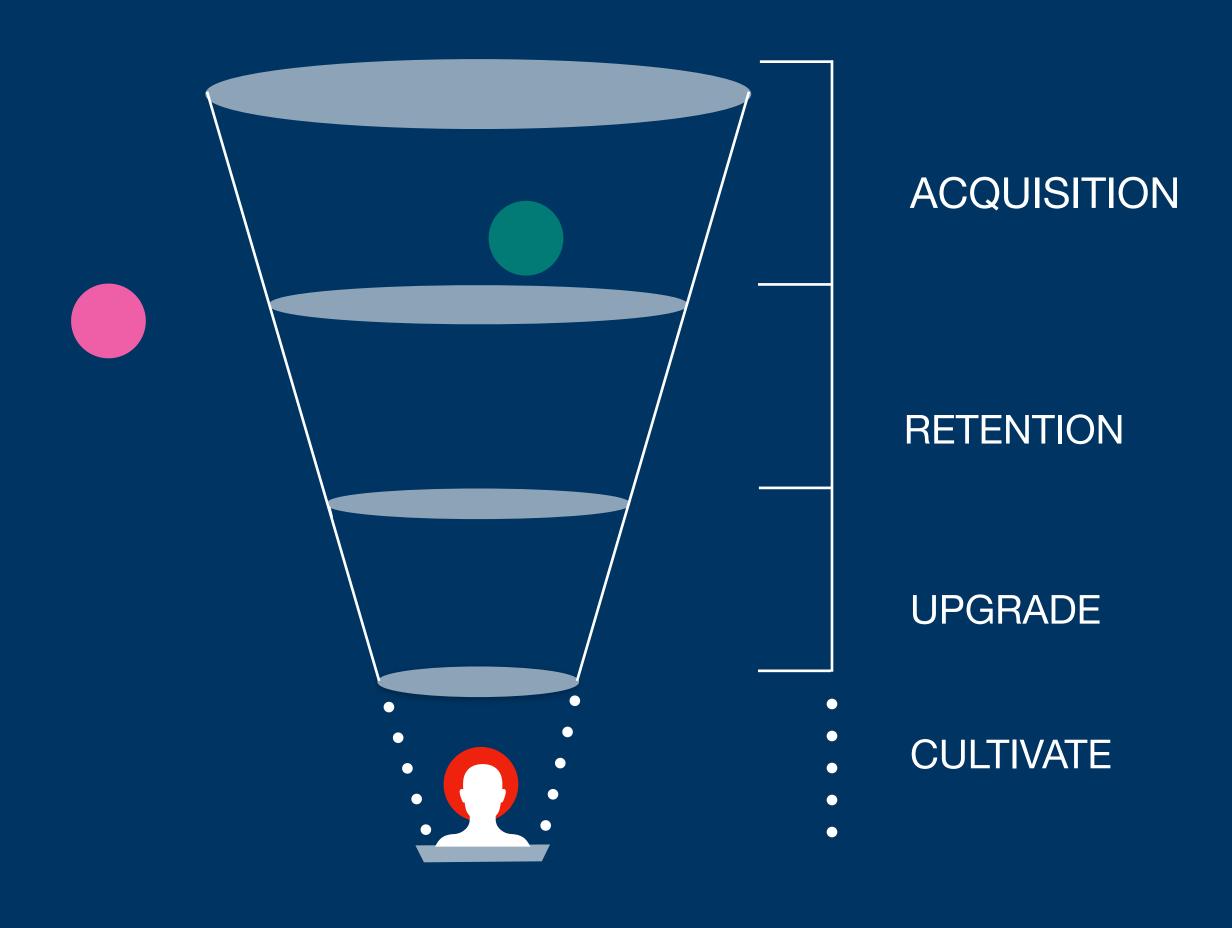




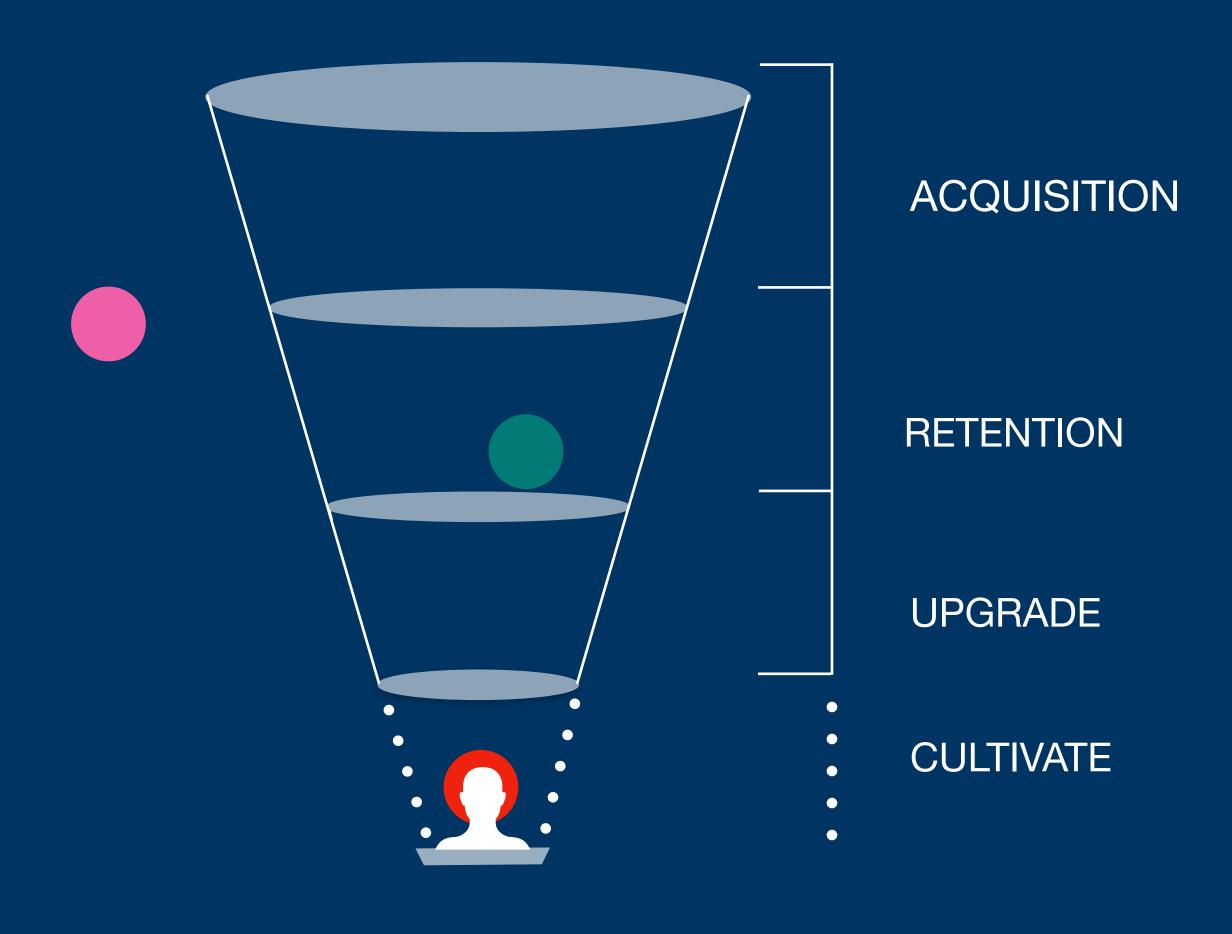




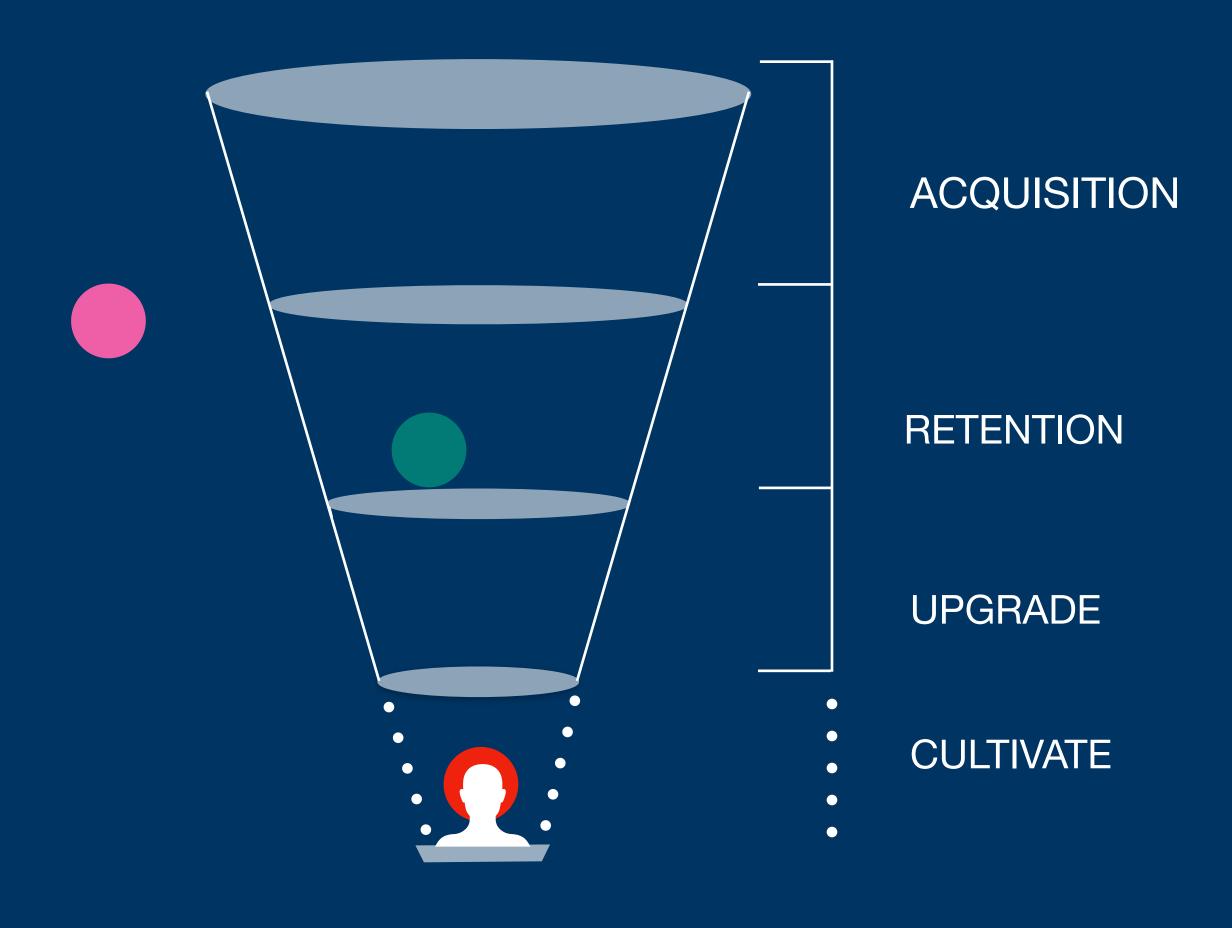




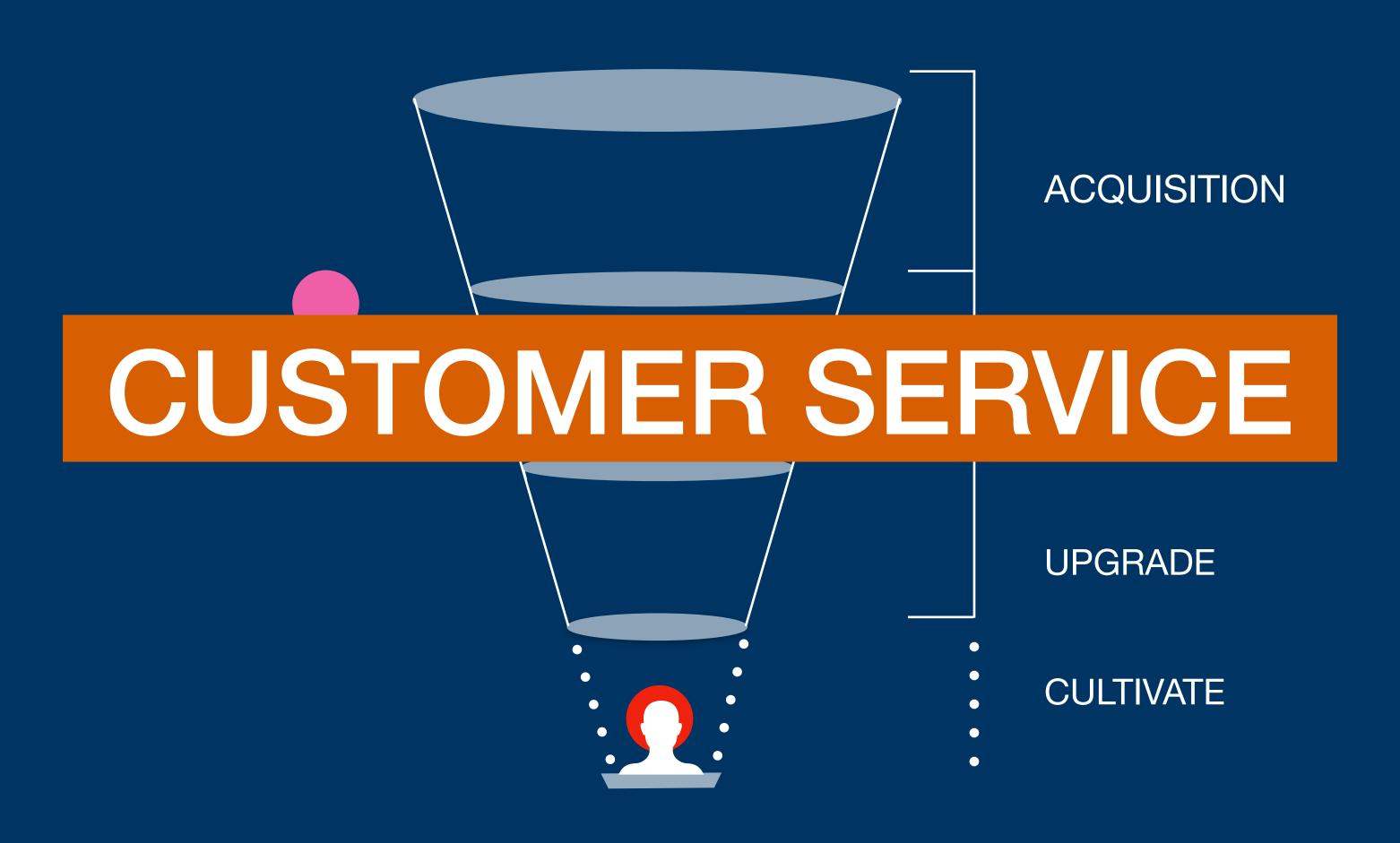








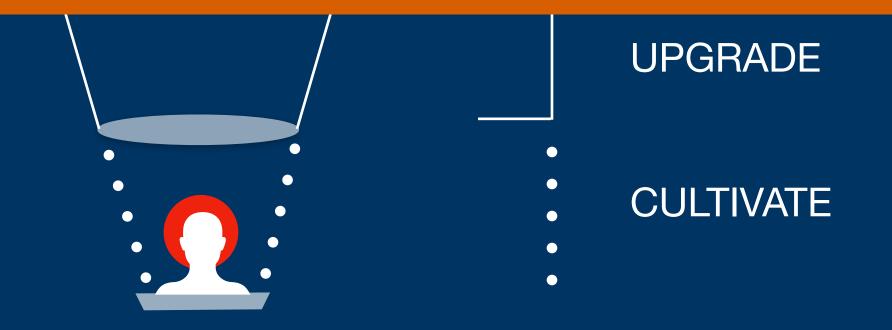








CUSTOMER SERVICE









FOUNDED





FOUNDED

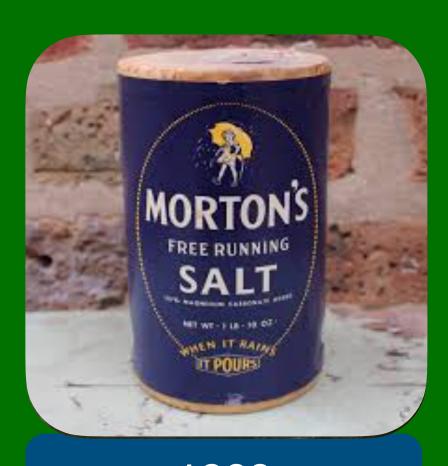
Arboretum founded by Joy Morton of Morton Salt fame. The same family that founded Arbor Day in Nebraska





FOUNDED







1922

1972

FOUNDED

MEMBERSHIP





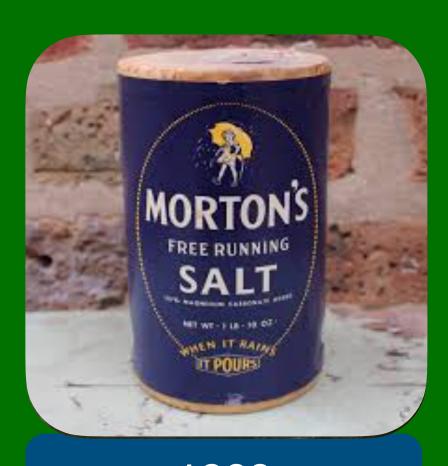


FOUNDED

MEMBERSHIP

Established Membership Program with 400 members after first year







1922

1972

FOUNDED

MEMBERSHIP









1922 1972

2005

FOUNDED

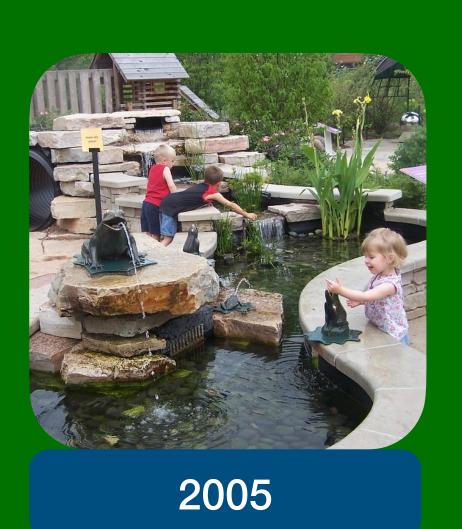
MEMBERSHIP

CHILDREN'S GARDEN









FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN

Next BIG thing: (took 33 years!) Opening of the 4-acre Children's Garden (September) and several other Major improvements to encourage visitation from members and non-members. Membership grew from 19,537 before opening to 31,100 in 12 months. A 150% increase. Annual visitation: went from 415K to 735,500, during the same time - a 77% increase.









1922 1972

2005

FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN









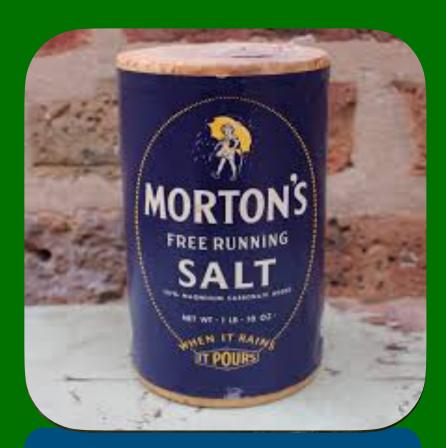
FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN

2007-09 Recession. No loss of member households; no loss in attendance. By the end of 2009, 34,065 households and 830,617 visitors (about 2/3rd members).

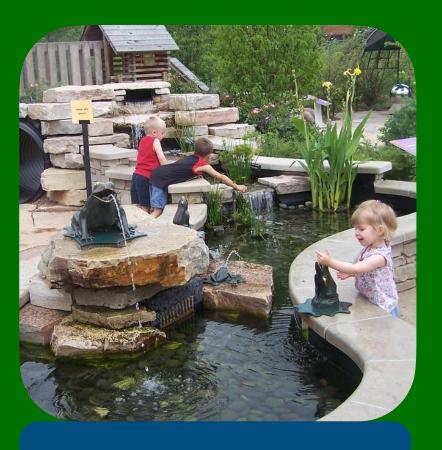








1972



2005

FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN











1922 1972

2005

2013

FOUNDED

MEMBERSHIP

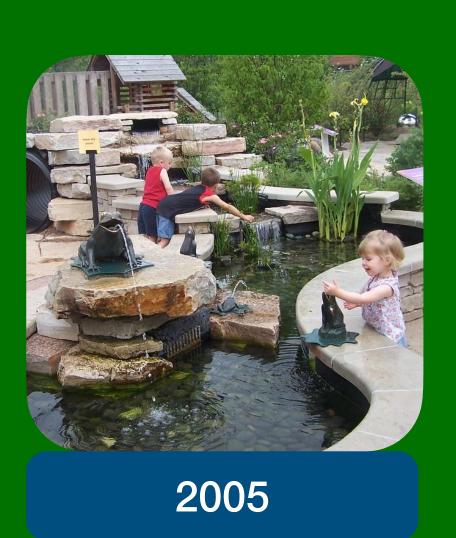
CHILDREN'S GARDEN

ILLUMINATION











FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN

ILLUMINATION

2013 The \$1 million Challenge: Illumination: See Trees in a Different Light launched. Attracted more than 60,000 additional visits in the first year mid-November through 1st week of January. Households climbed another 9% to 38,618 and admission went to 895,347 (both over prior year).











1922 1972

2005

2013

FOUNDED

MEMBERSHIP

CHILDREN'S GARDEN

ILLUMINATION





ILLUMINATION





ILLUMINATION

LEGOS

2015 LEGOS. Added more admissions due to popular summer exhibition, and Illumination combined to jump our admissions to 1,047,335, a 12% increase in a single year. Households climbed to 43,735 - a jump of 11% over prior year.



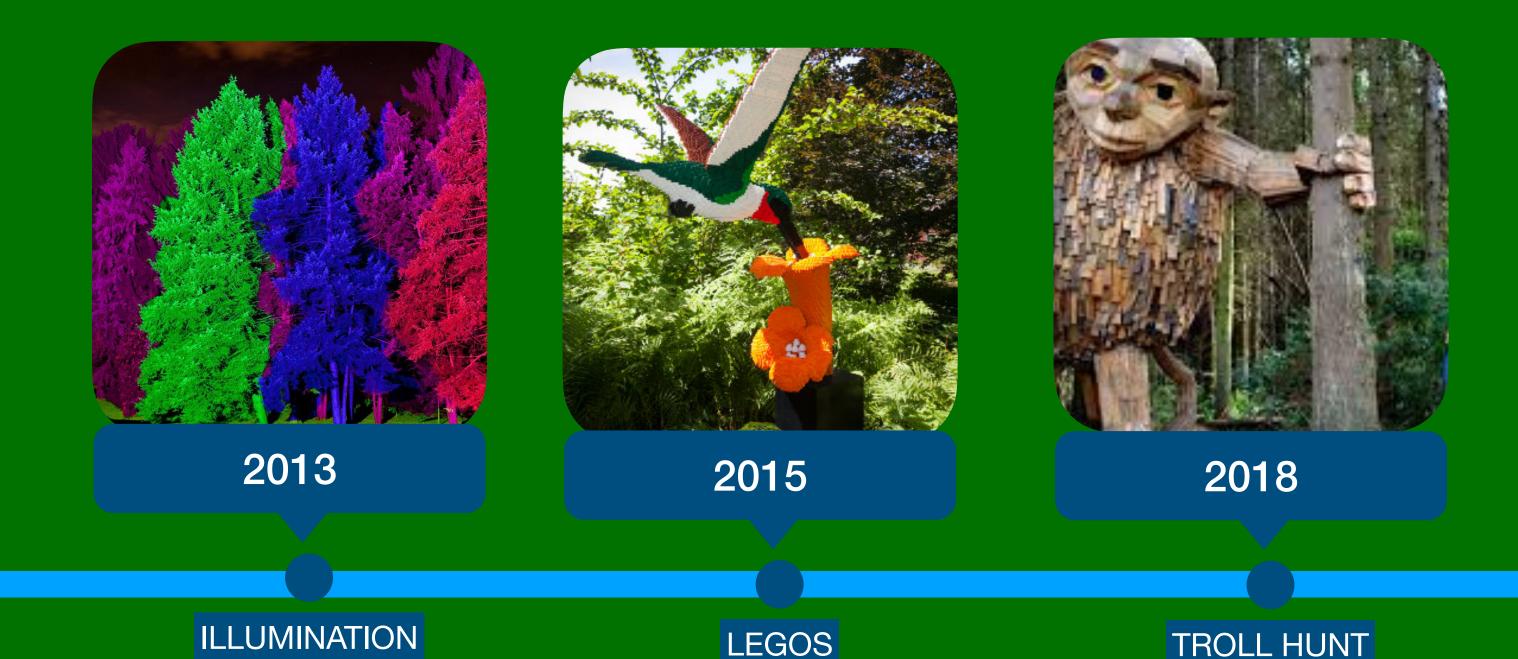




ILLUMINATION

LEGOS





2018 Troll Hunt. The Arboretum's most successful exhibition ever and largest growth in admissions and member households since the opening of the Children's Garden 15 years earlier. Households at 53,320 - and almost all of the 16% increase came in the months of July - September. Admissions rose to 1.24 million - an increase of 31% in a single year.









2015



2018

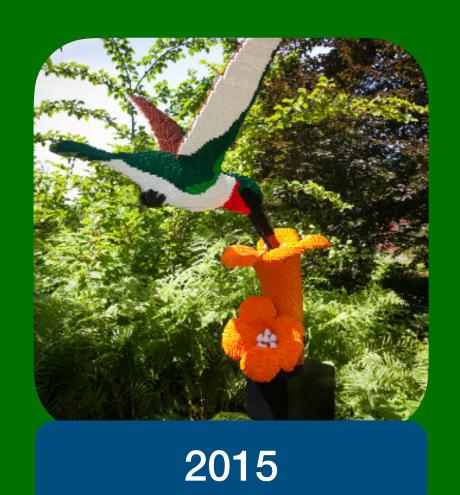
ILLUMINATION

LEGOS

TROLL HUNT











ILLUMINATION

LEGOS

TROLL HUNT

COVID-19

2020 COVID. Closed in mid-March, reopened in June. Down about 30% on revenue and in the process of losing ~ 7,500 - 10,000 households - being offset by new acquisitions (outdoors place with 1,700 acres to safely social distance. Slowly bringing back some events and onsite opportunities). We extended active members households on the file in March 2020 by three months. Losing the most value-driven and non-philanthropic members. (Not all bad.OK to rebalance once every generation!)











2013

2015

2018

2020

ILLUMINATION

LEGOS

TROLL HUNT

COVID-19

MANAGE CHANGE



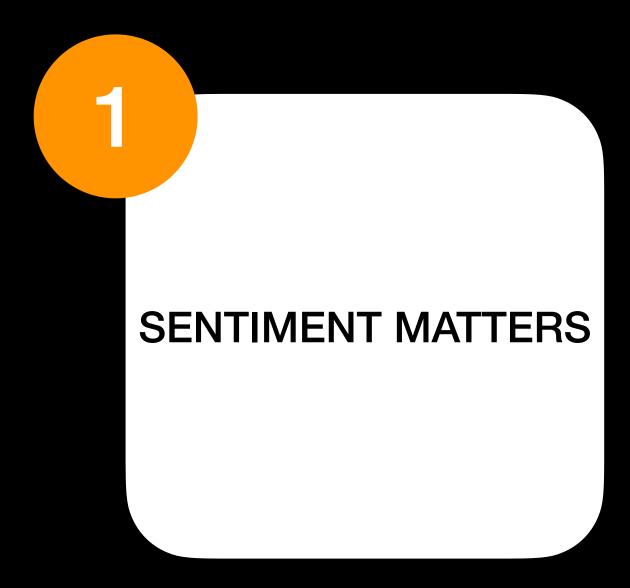




3 Attendee takeaways

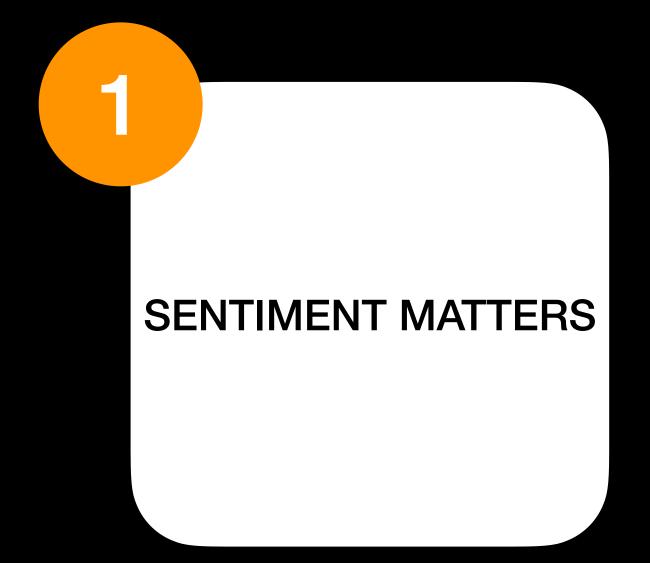


3 Attendee takeaways





3 Attendee takeaways



SENTIMENT CAN BE MEASURED



3 Attendee takeaways

SENTIMENT MATTERS

SENTIMENT CAN BE MEASURED

SENTIMENT CAN BE MANAGED

CASE STUDY





GUEST EXPERIENCE



Sentiment Analysis / Hotel Case Study

Objective

Help hotel improve guests experience as reflected in their ratings and reviews fo their hotel experience

INPUTS



Sentiment Analysis / Hotel Case Study

Inputs

- feedback provided by hotel guests
- using TripAdvisor platform
- data elements
 - overall rating
 - review of overall experience



Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617



Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617

Rating: 3



Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617

Rating: 3

Review:

Got a great deal with priceline, only \$75 per night for December weekend, but can't understand why you only get 3 towels and 1 wash cloth per day. Also, stayed three nights and did not receive new soap or shampoo after checkin.



Sentiment Analysis / Hotel Case Study

Analytic Process

- 1. Extract the sentiment bearing words and phrases used by the reviewers
 - What are they talking about?
 - How do they feel these topics?



Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617

Rating: 3

Review:

Got a great deal with priceline, only \$75 per night for December weekend, but can't understand why you only get 3 towels and 1 wash cloth per day. Also, stayed three nights and did not receive new soap or shampoo after checkin.



Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617

Rating: 3

Review:

Got a great deal with priceline, only \$75 per night for December weekend, but can't understand why you only get 3 towels and 1 wash cloth per day. Also, stayed three nights and did not receive new soap or shampoo after checkin.

ANALYTIC PROCESS







Example TripAdvisor Record

Review UR107650654

Reviewer: Keszee

Hotel: 87617

Rating: 3

Review:

Got a great deal with priceline, only \$75 per night for December weekend, but can't understand why you only get 3 towels and 1 wash cloth per day. Also, stayed three nights and did not receive new soap or shampoo after checkin.

Sentiment Score: -0.21

KEY POINTS



Sentiment Analysis / Hotel Case Study

Analytic Process

key points:

- 1. scalability is critical
- 2. this process requires specialized tools
- 3. the core analytic process yields parts that can be combined to form useful analyses

OUTPUTS





INSIGHT



Example Output

Rank	Feature	Impact on Rating
1	Helpful Friendly Staff	39.7%
2	Good Service	34.0%
3	Plenty of Clean Fluffy Towels	24.6%
4	Good Large TVs	23.1%
5	Good Breakfast	22.8%
6	Well Appointed Bathroom	20.1%
7	Clean Hotel	19.2%
8	Clean Comfortable Room	19.0%
9	Comfortable Bed	18.0%
10	Good Price and Value	12.5%
11	Good Bar and Restaurant	11.5%
12	Good Pool	8.27%
13	Nice View	3.7%

Hotel Manager's Report

Discussion Points

- 1. What features are most important?
- 2. What features are not?
- 3. What features are not mentioned?

Sentiment Analysis / Hotel Case Study

Relevance to the Arboretum

- Both have appropriate data
- Both need solid process
- Both focused on improving guest experience













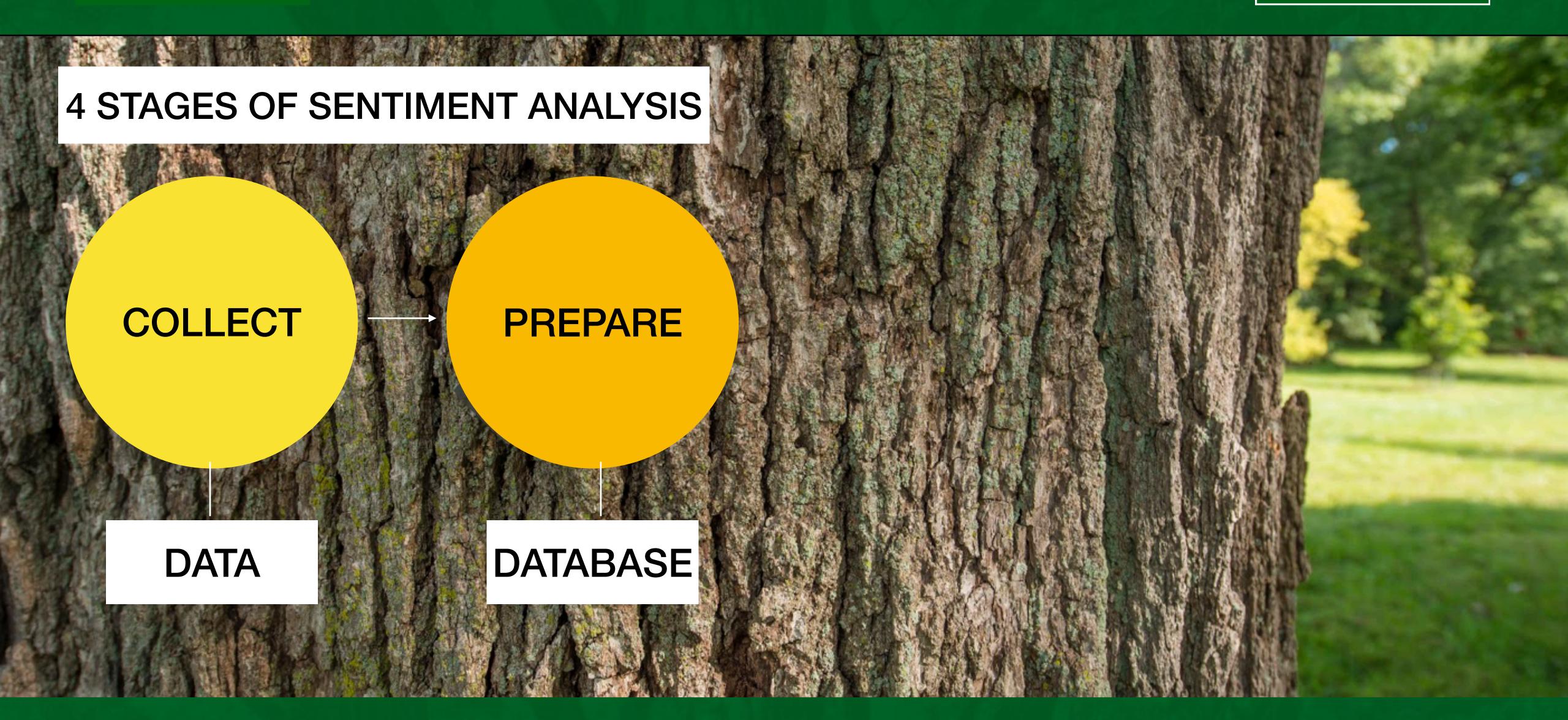




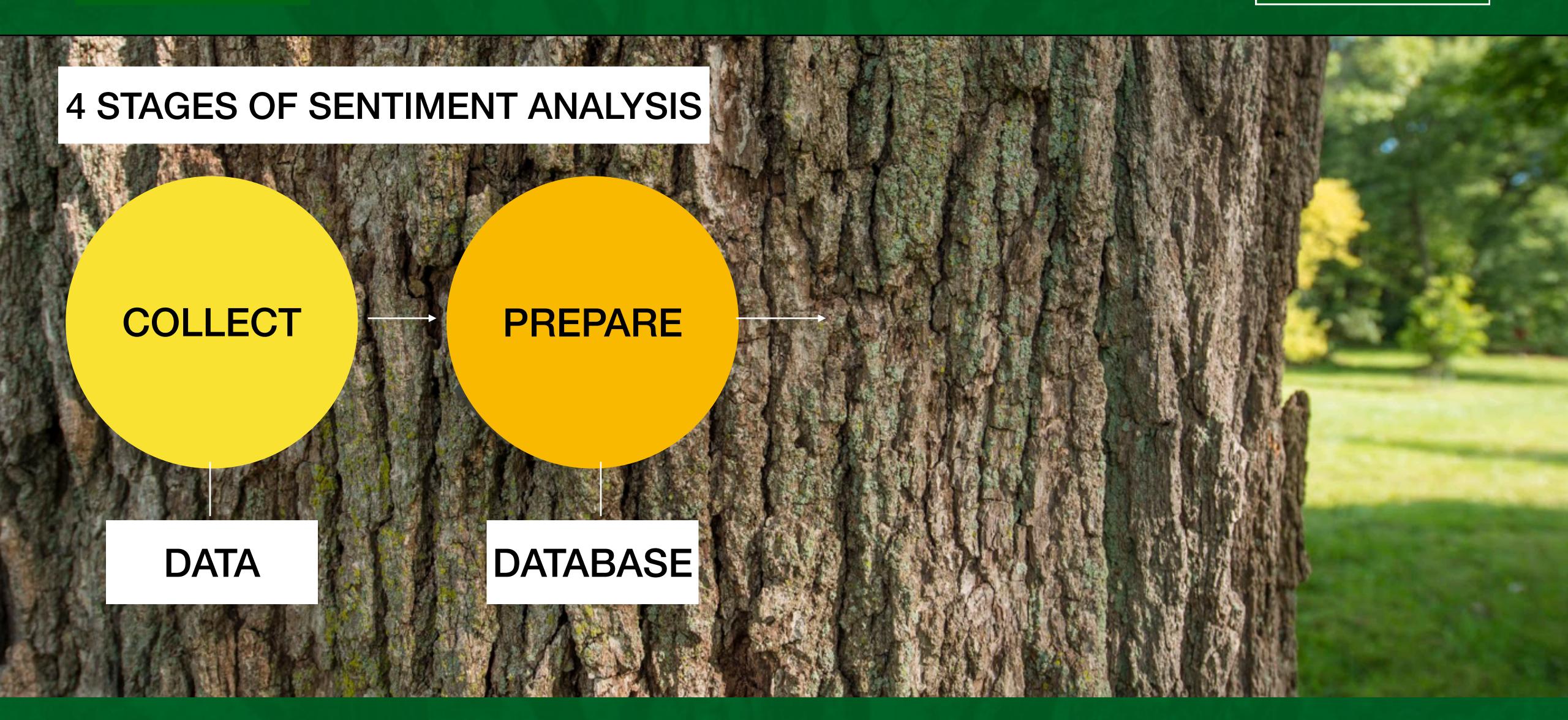




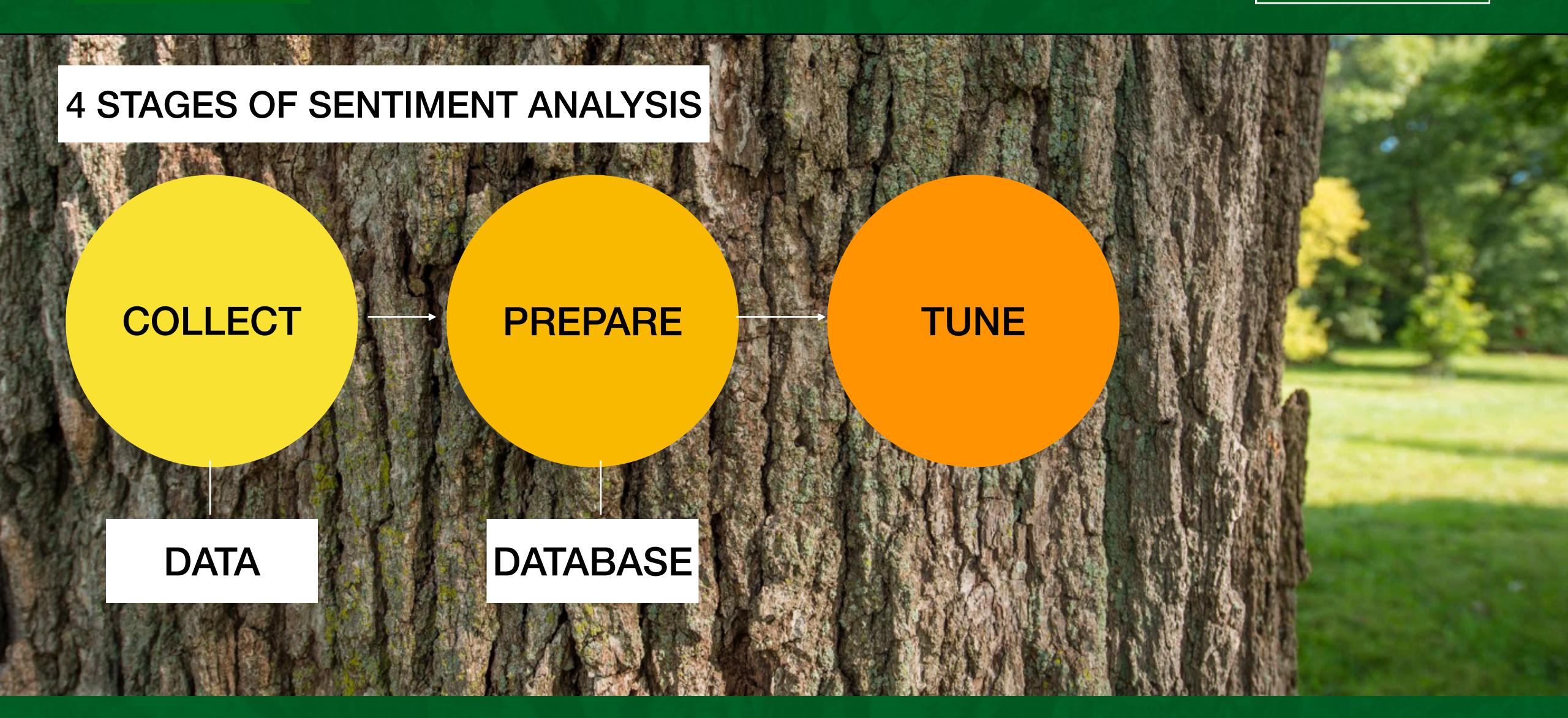




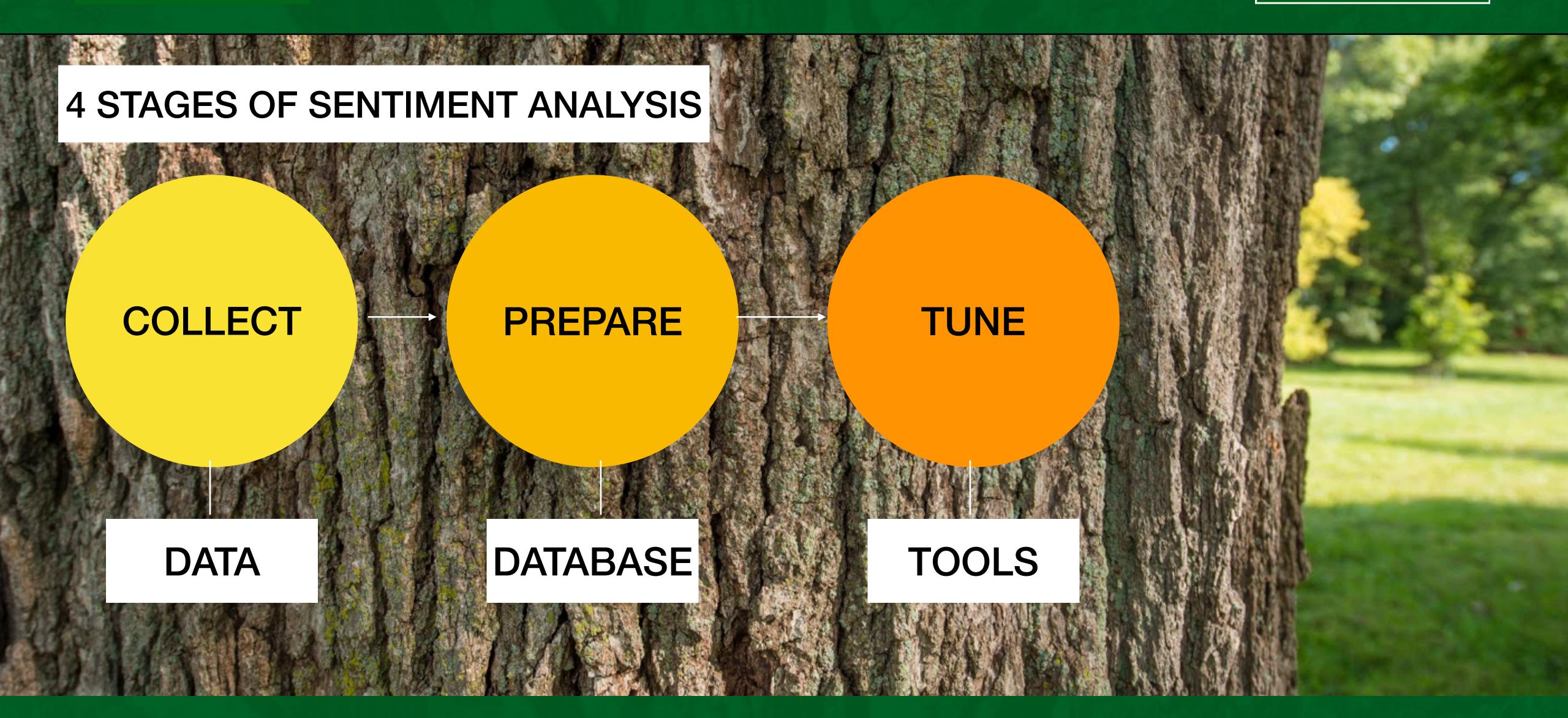




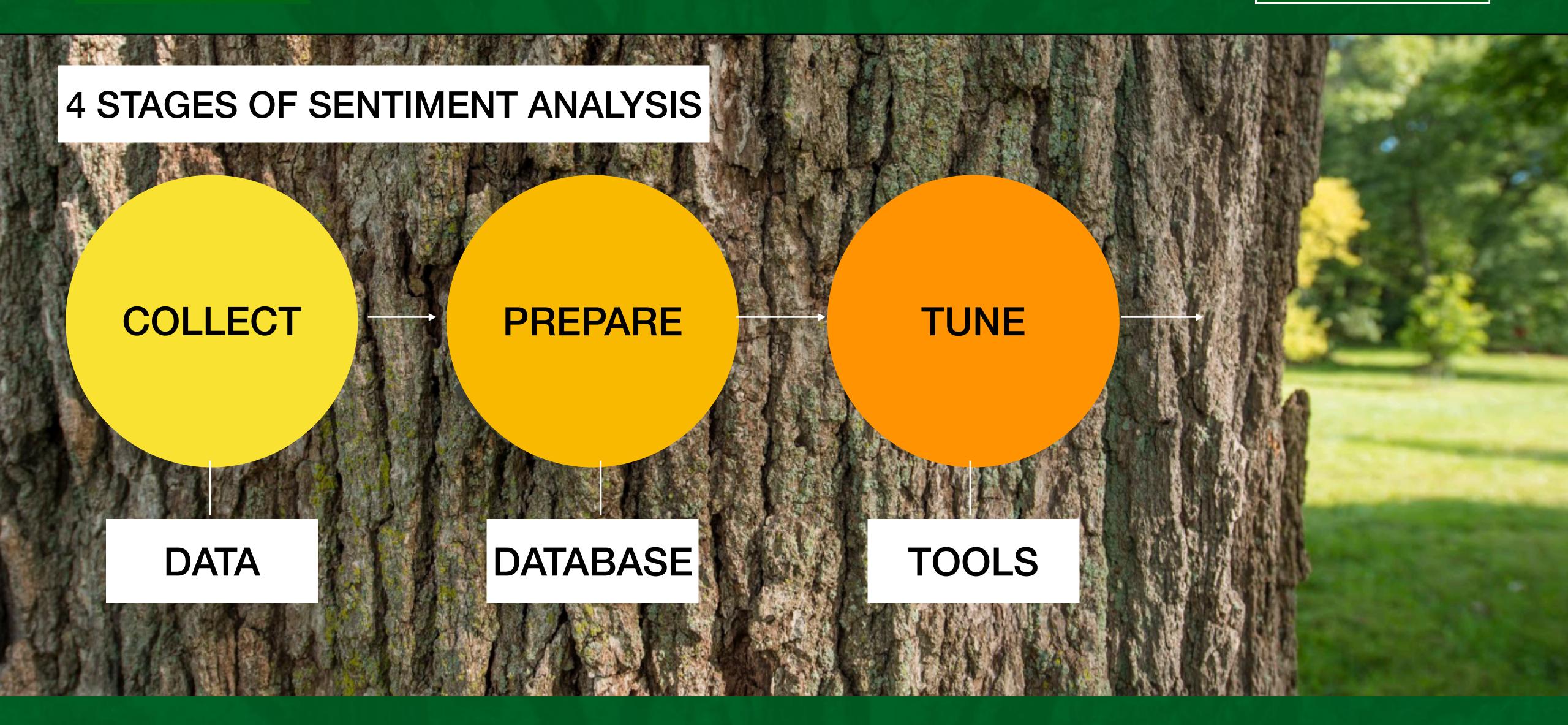




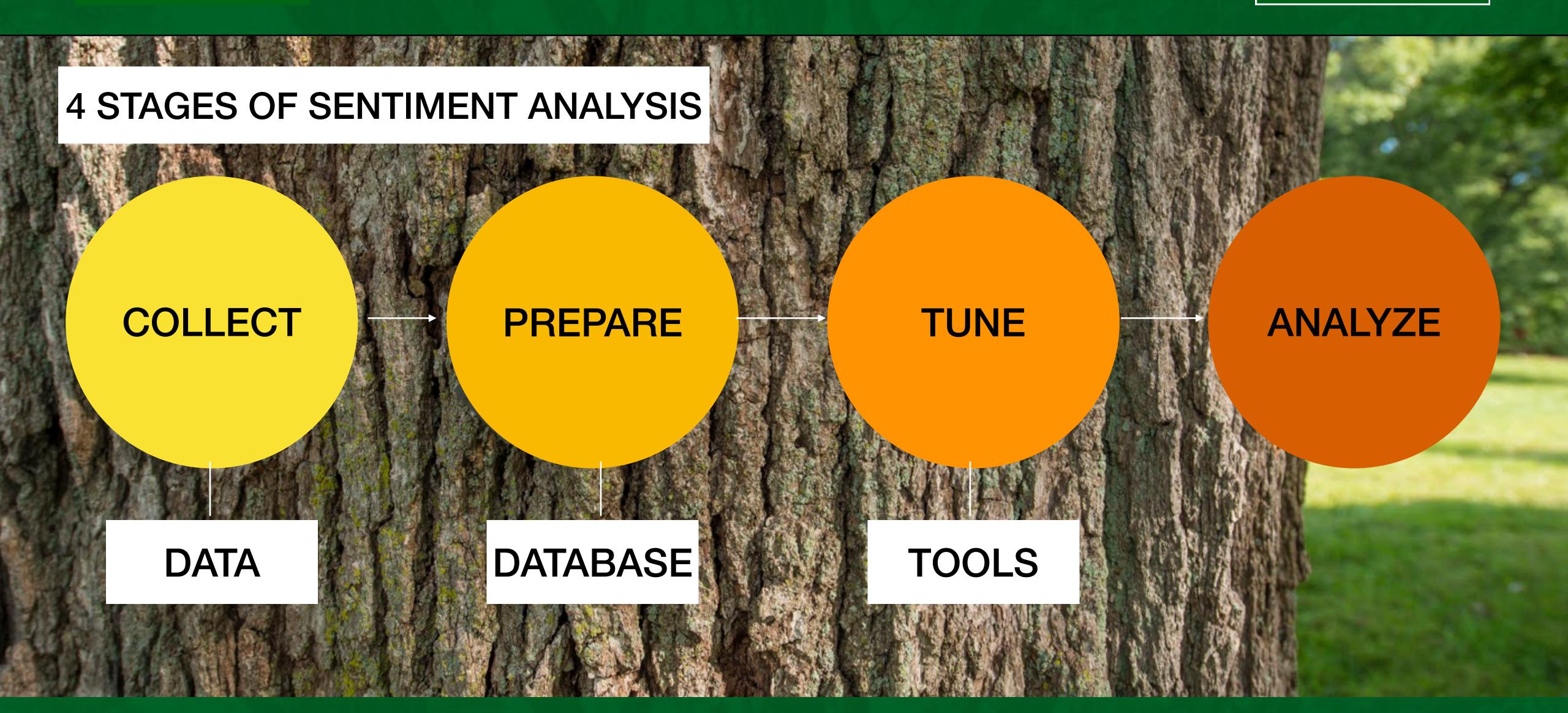




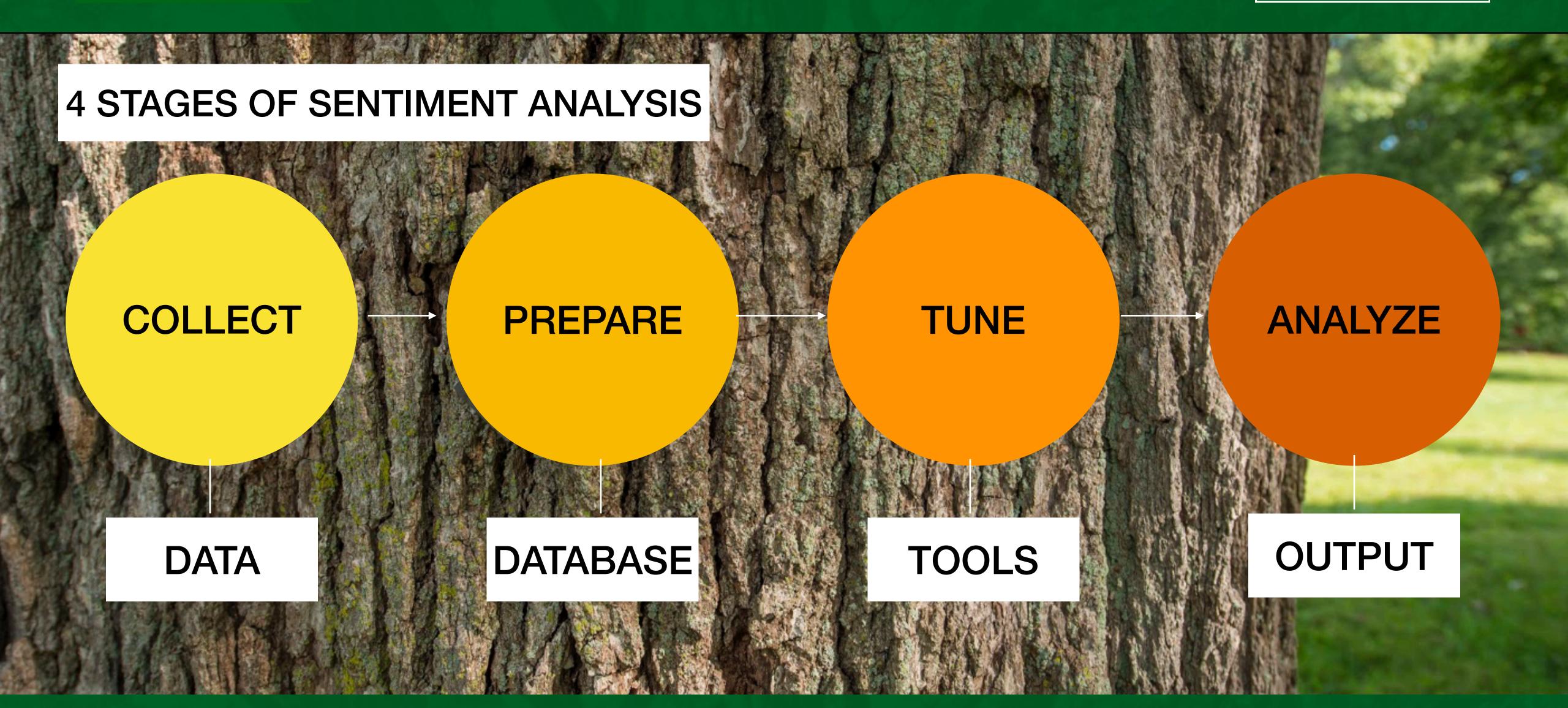




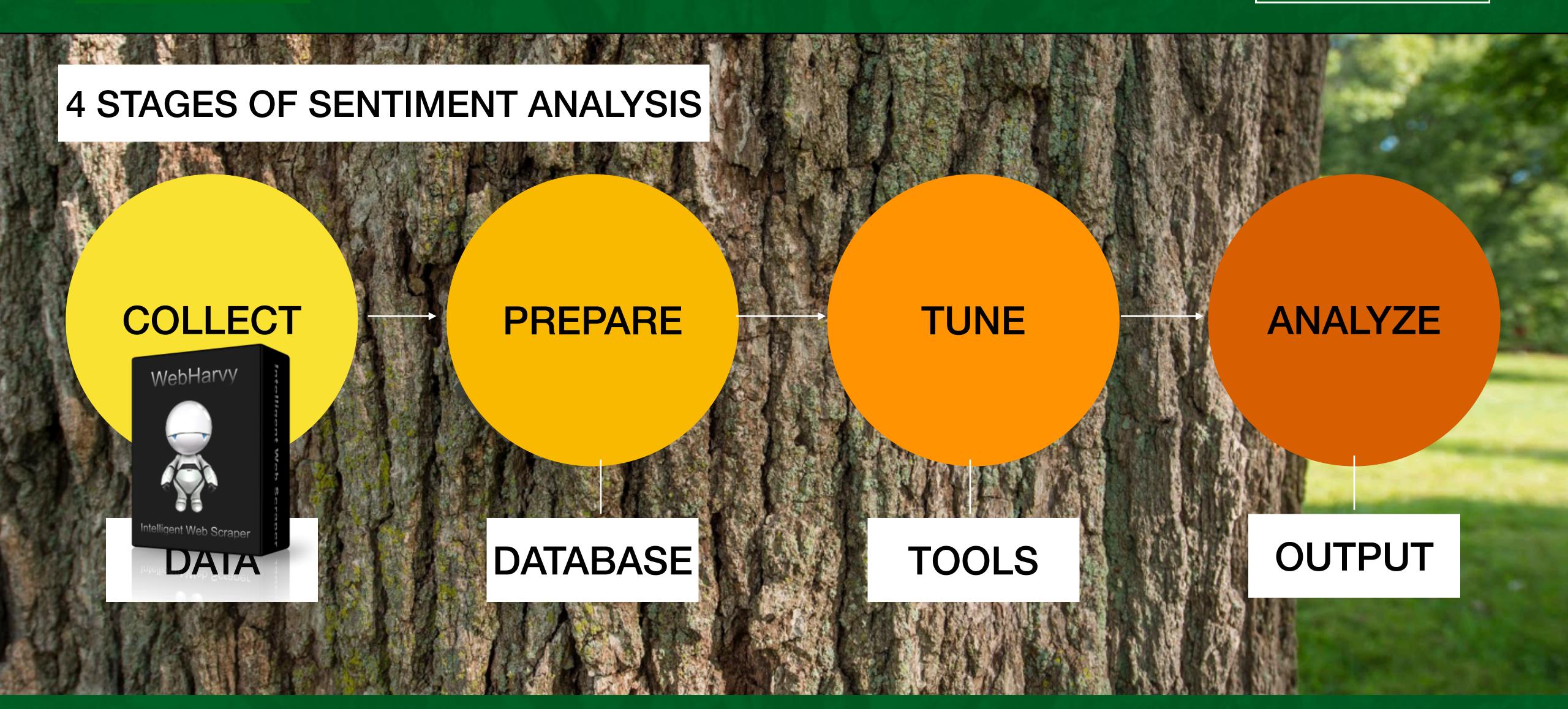




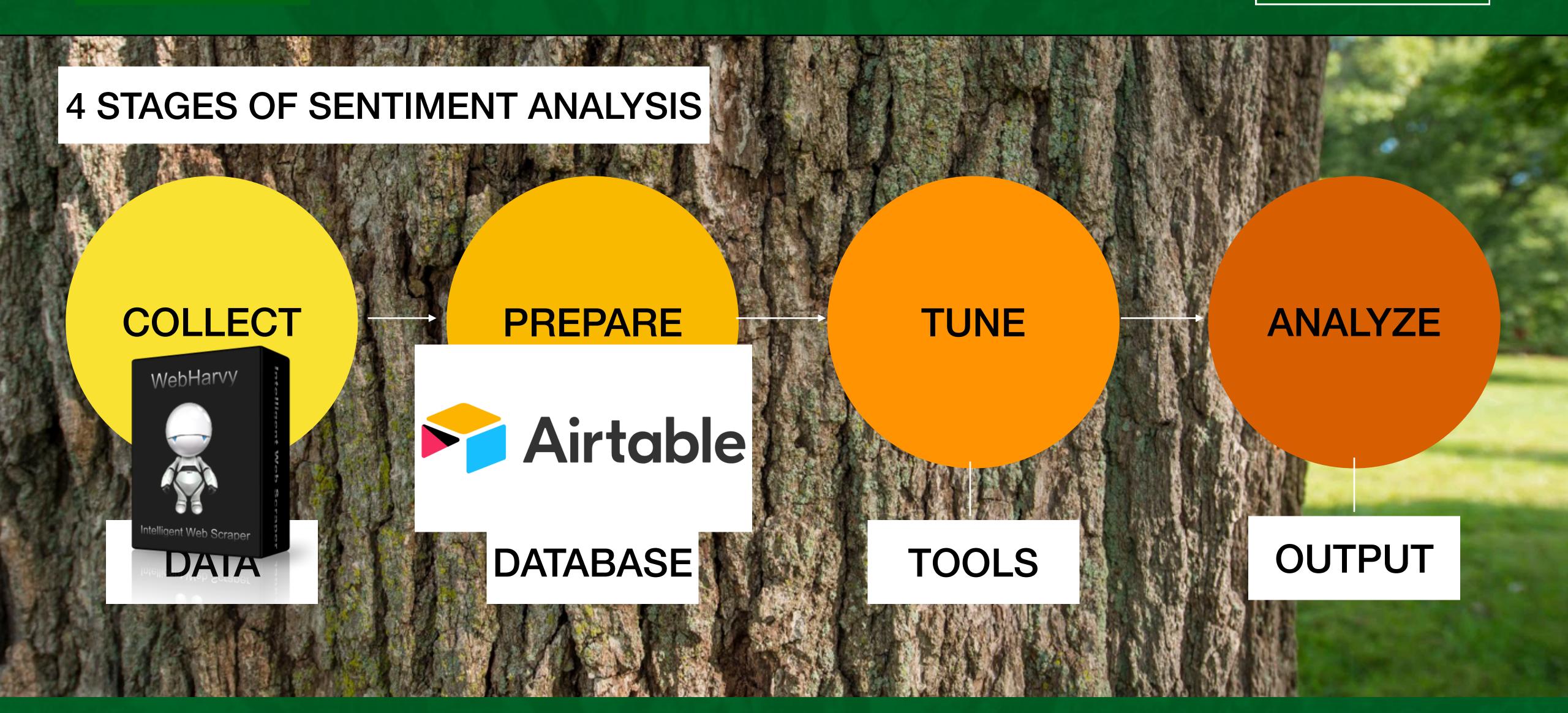




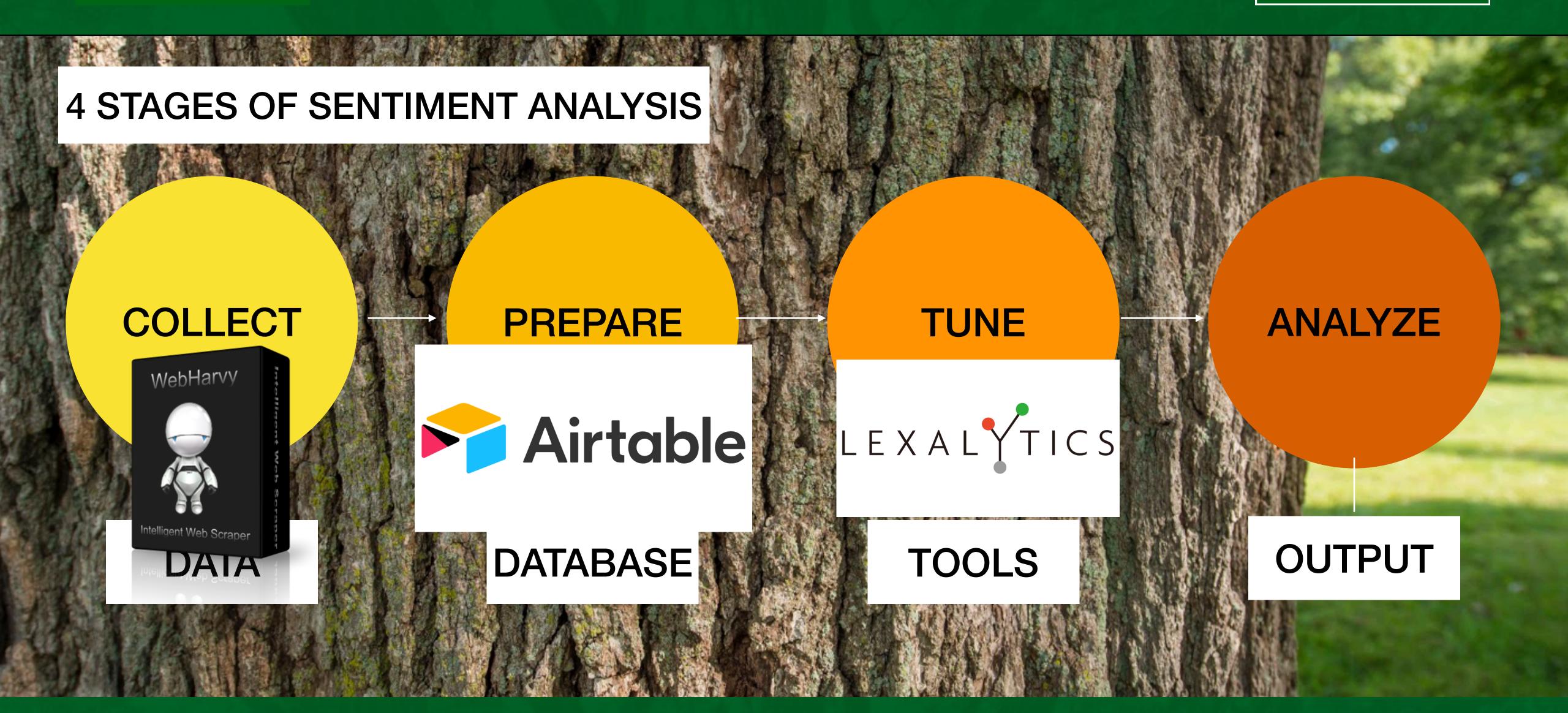




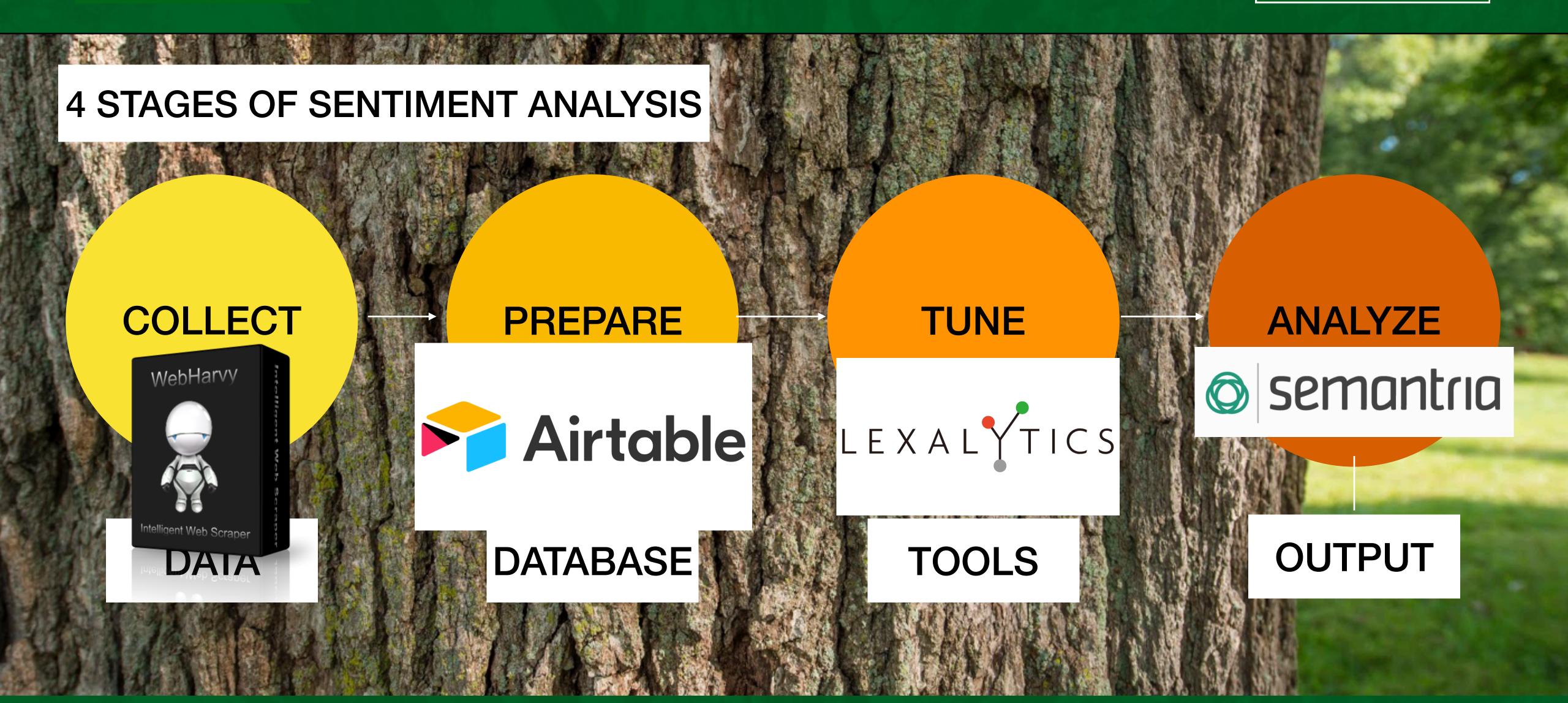






































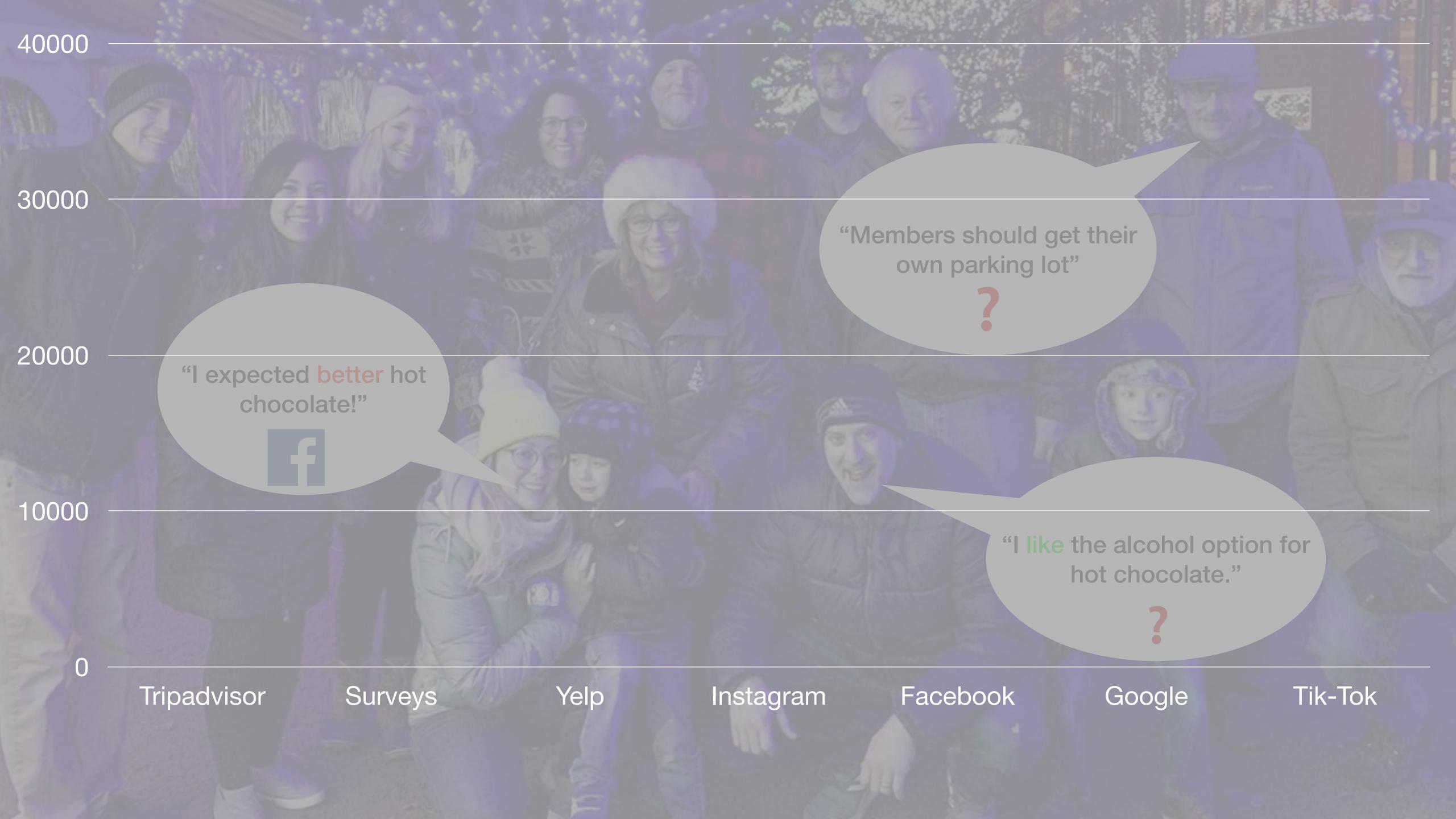


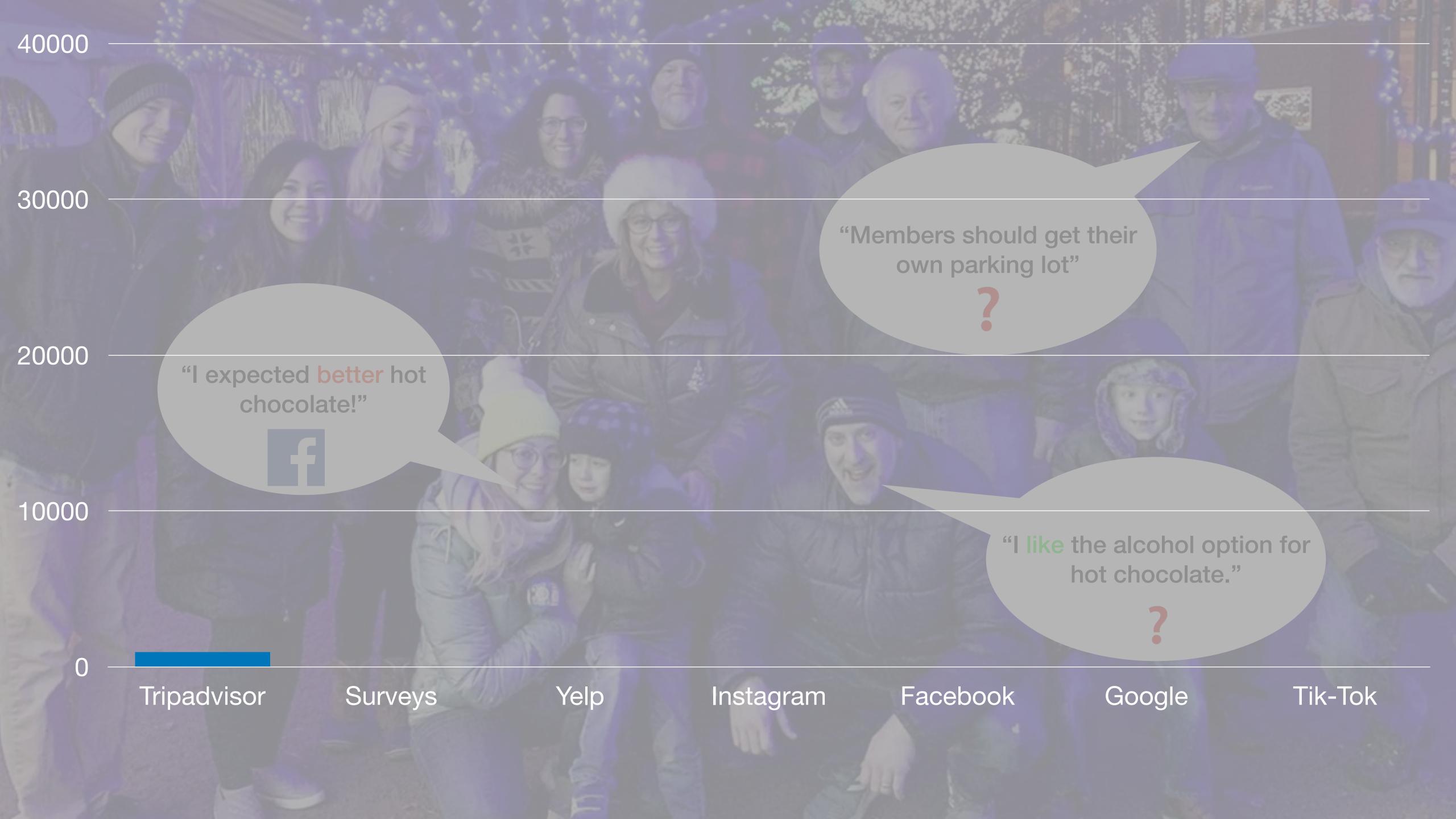


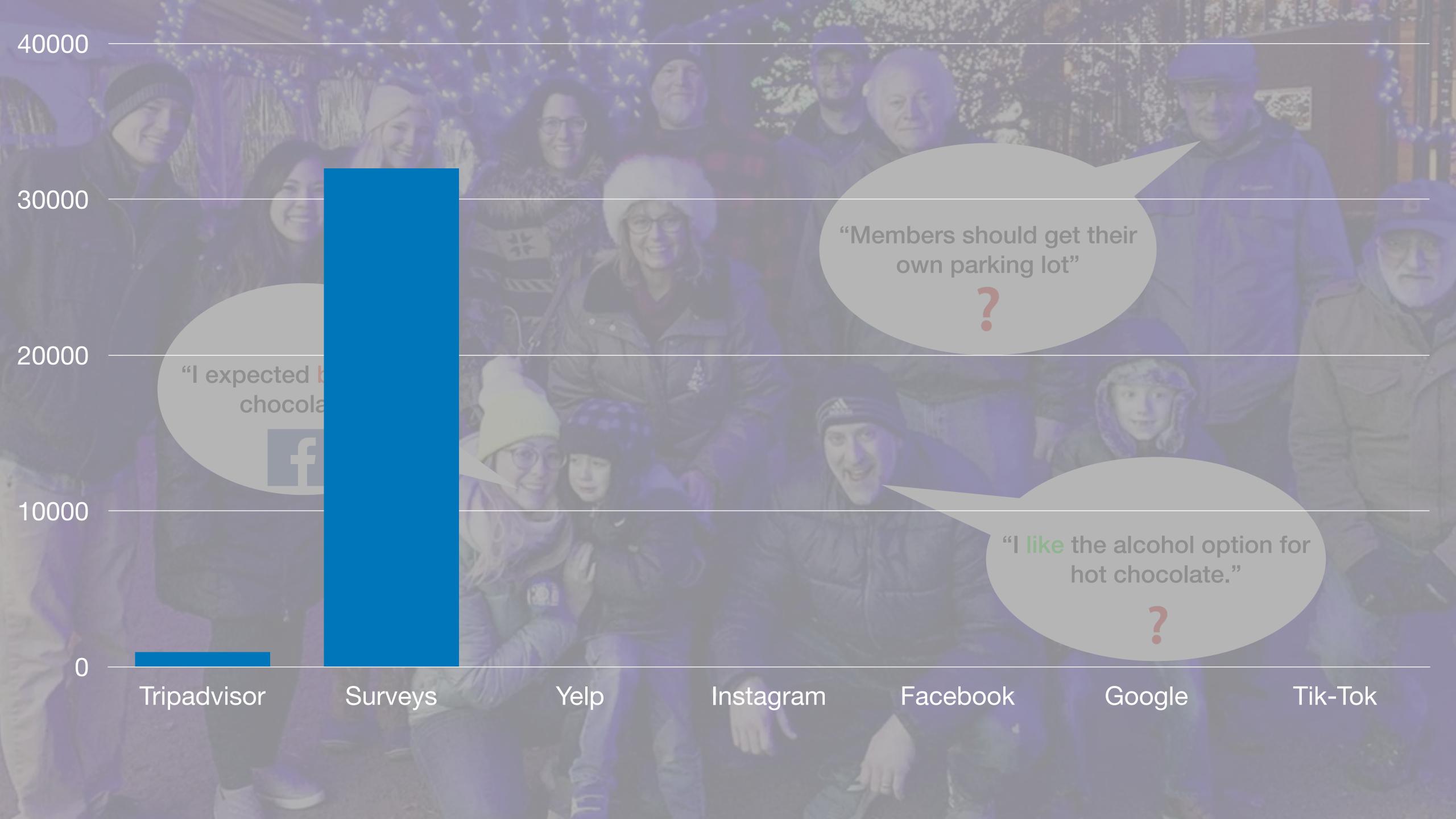


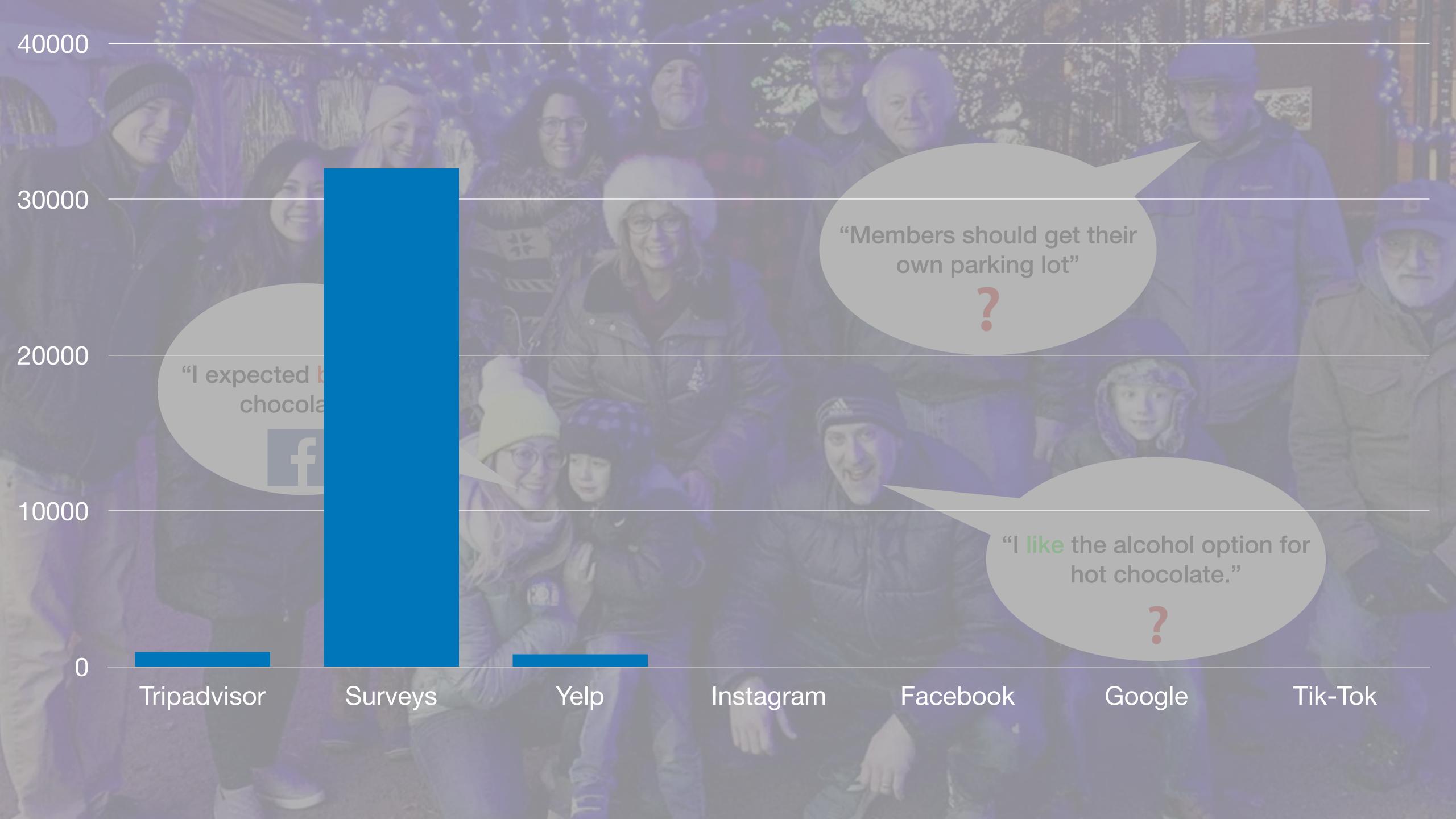


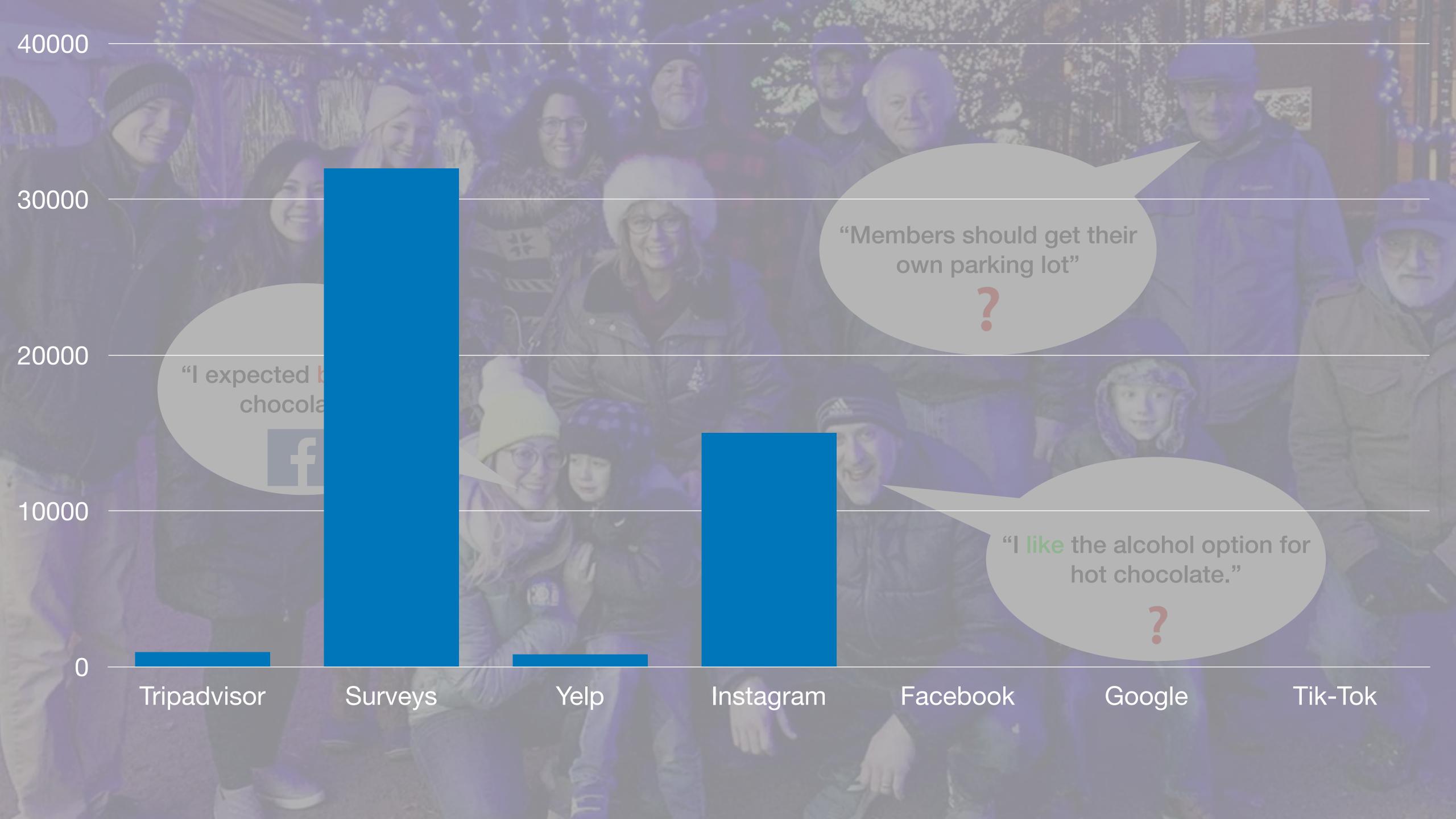


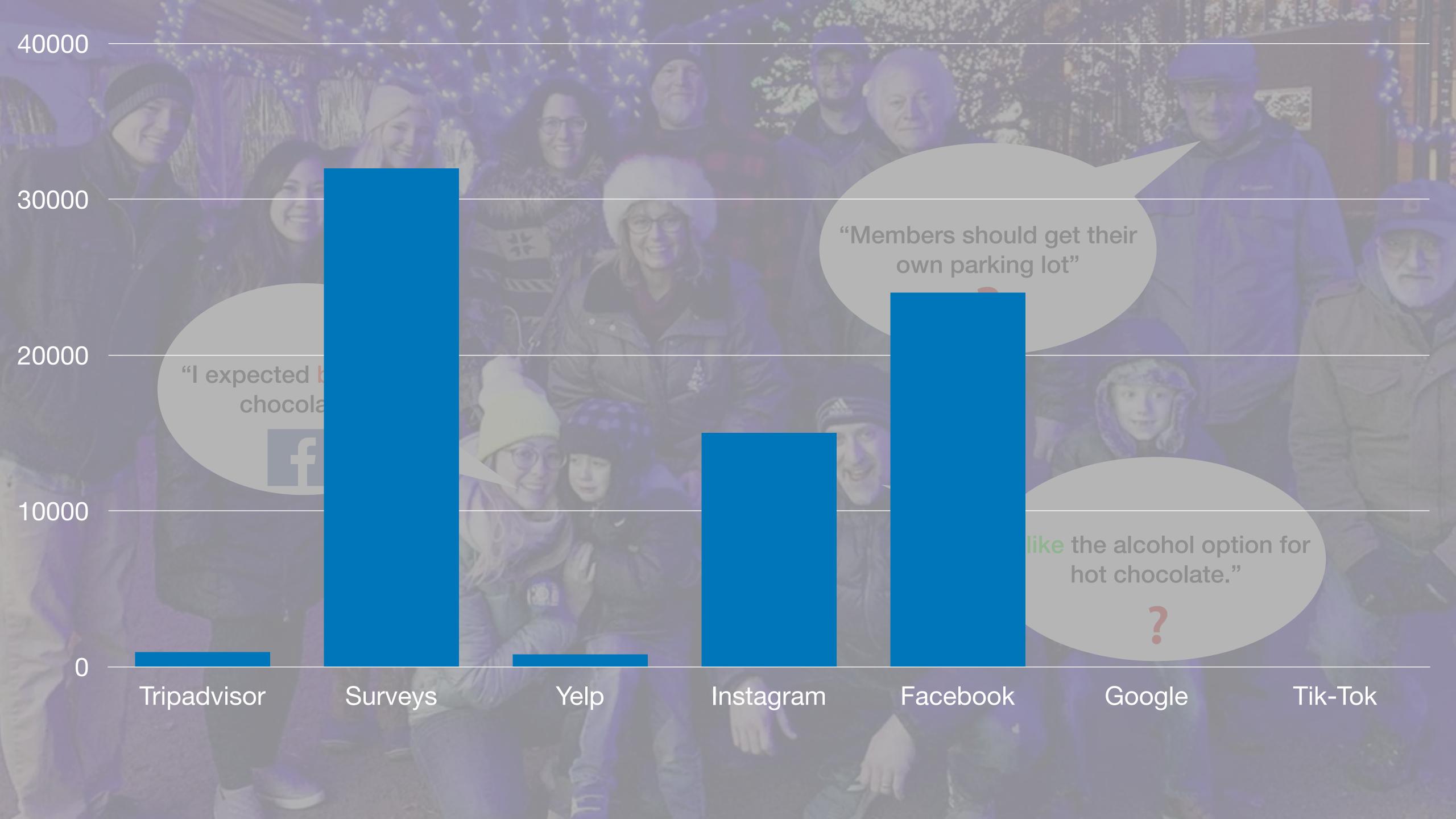


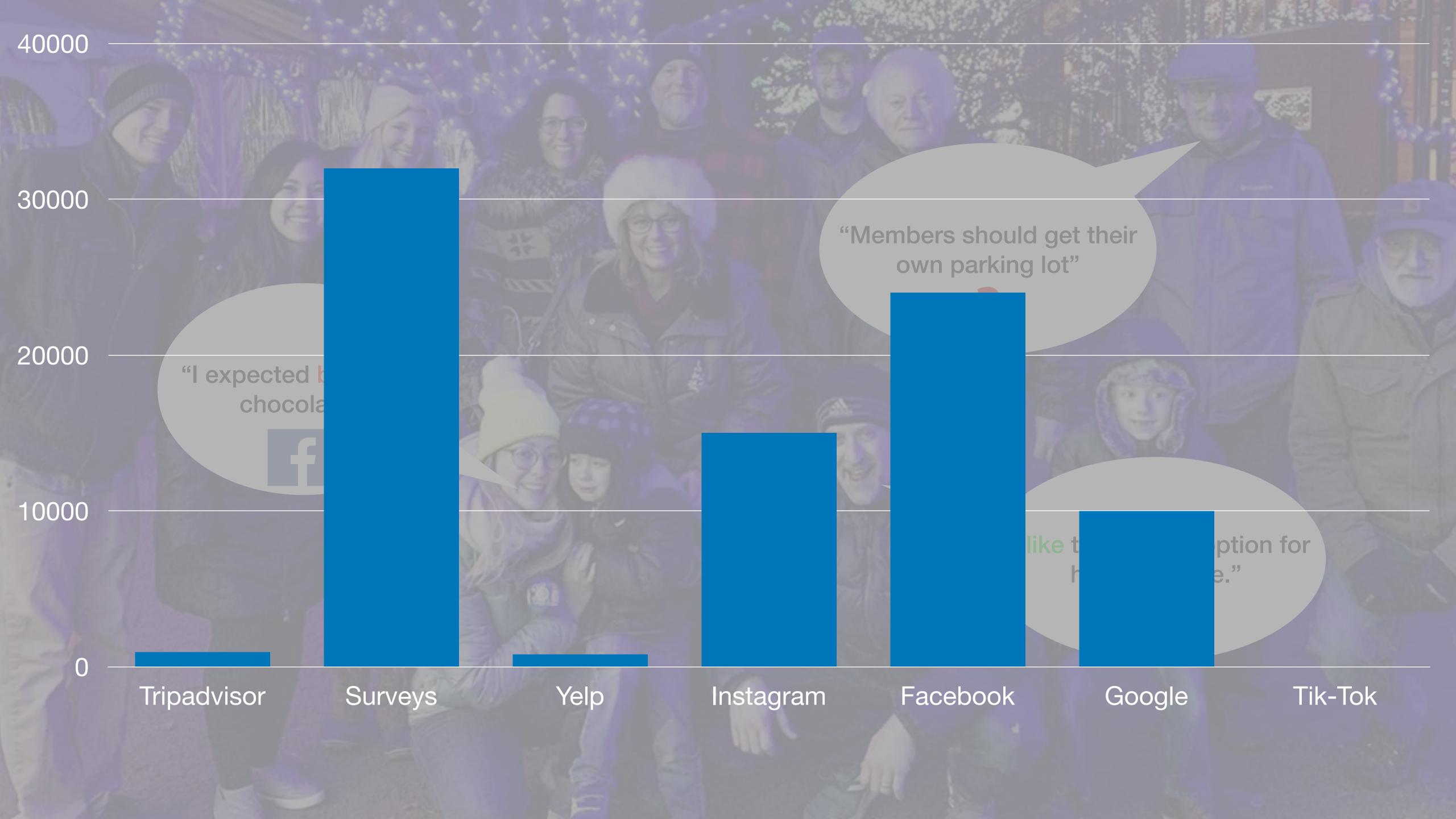


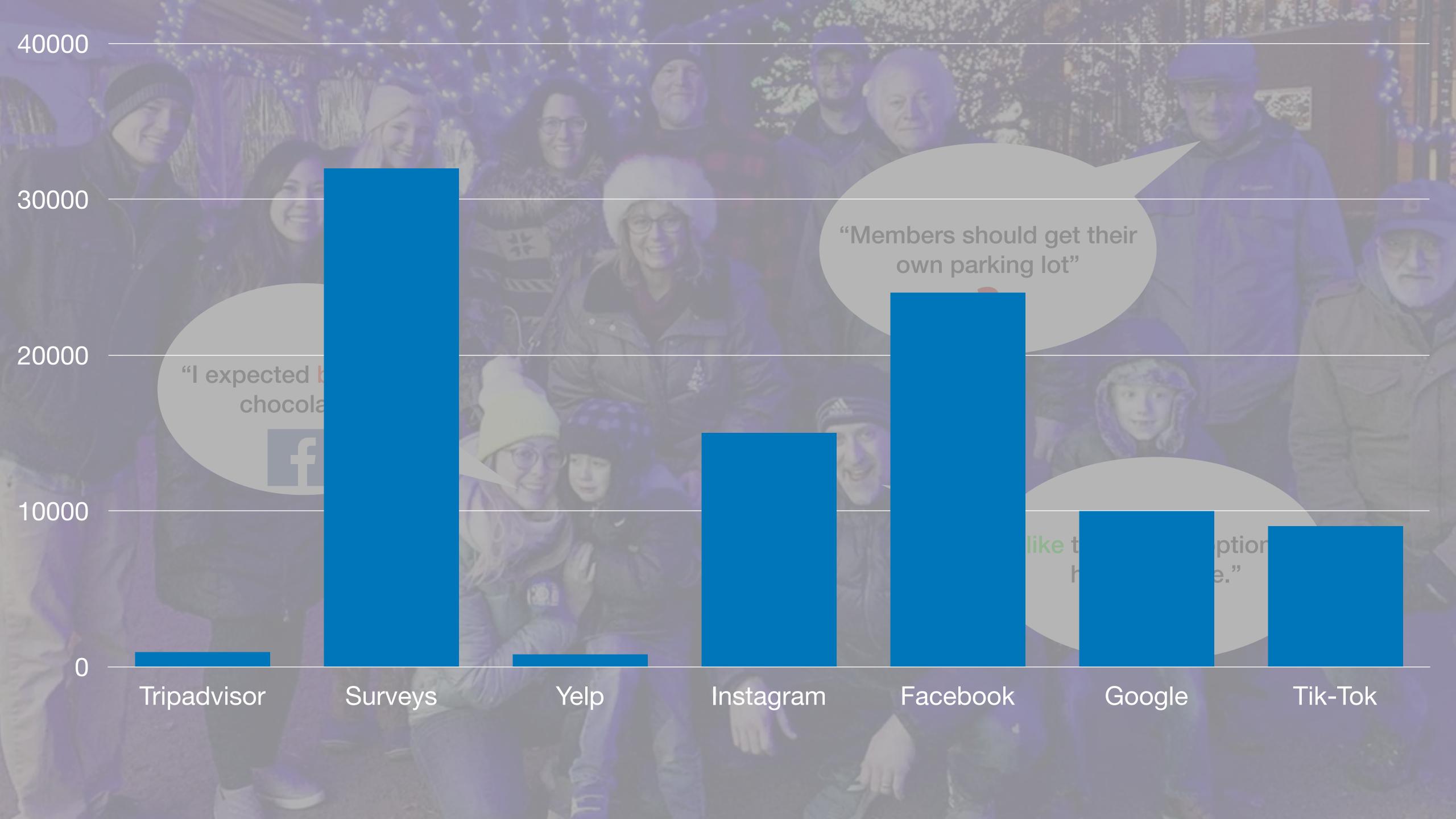


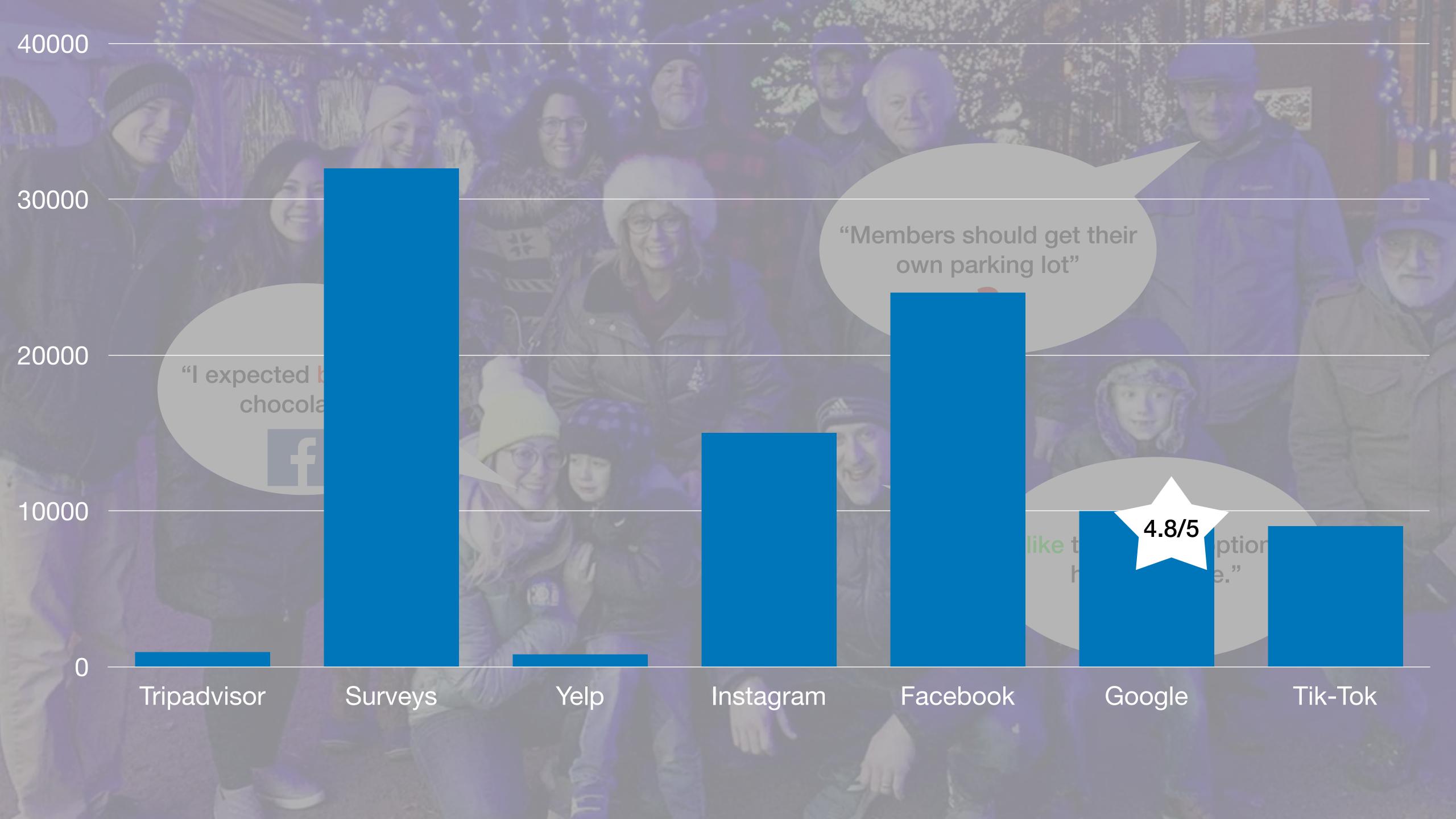


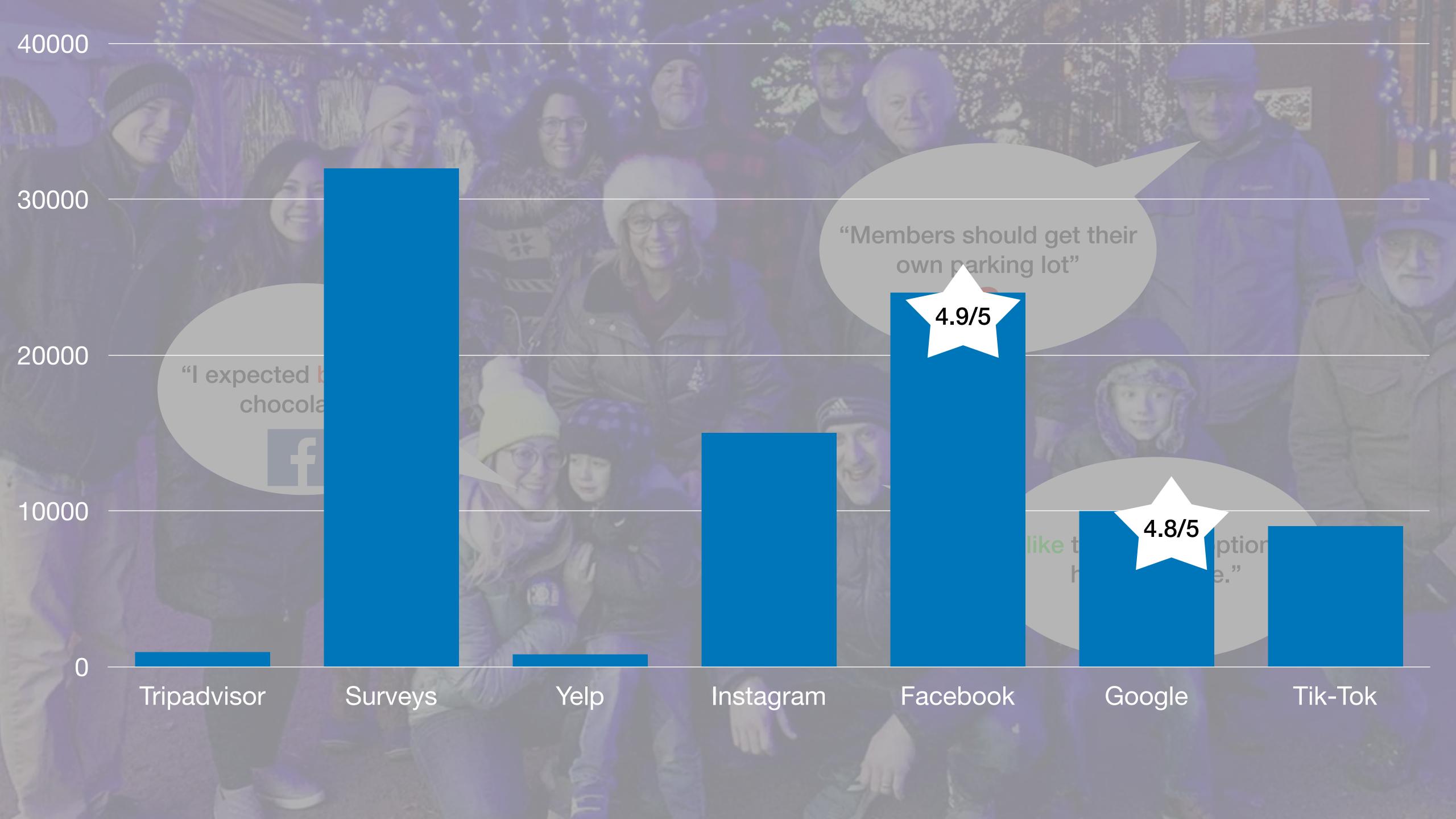


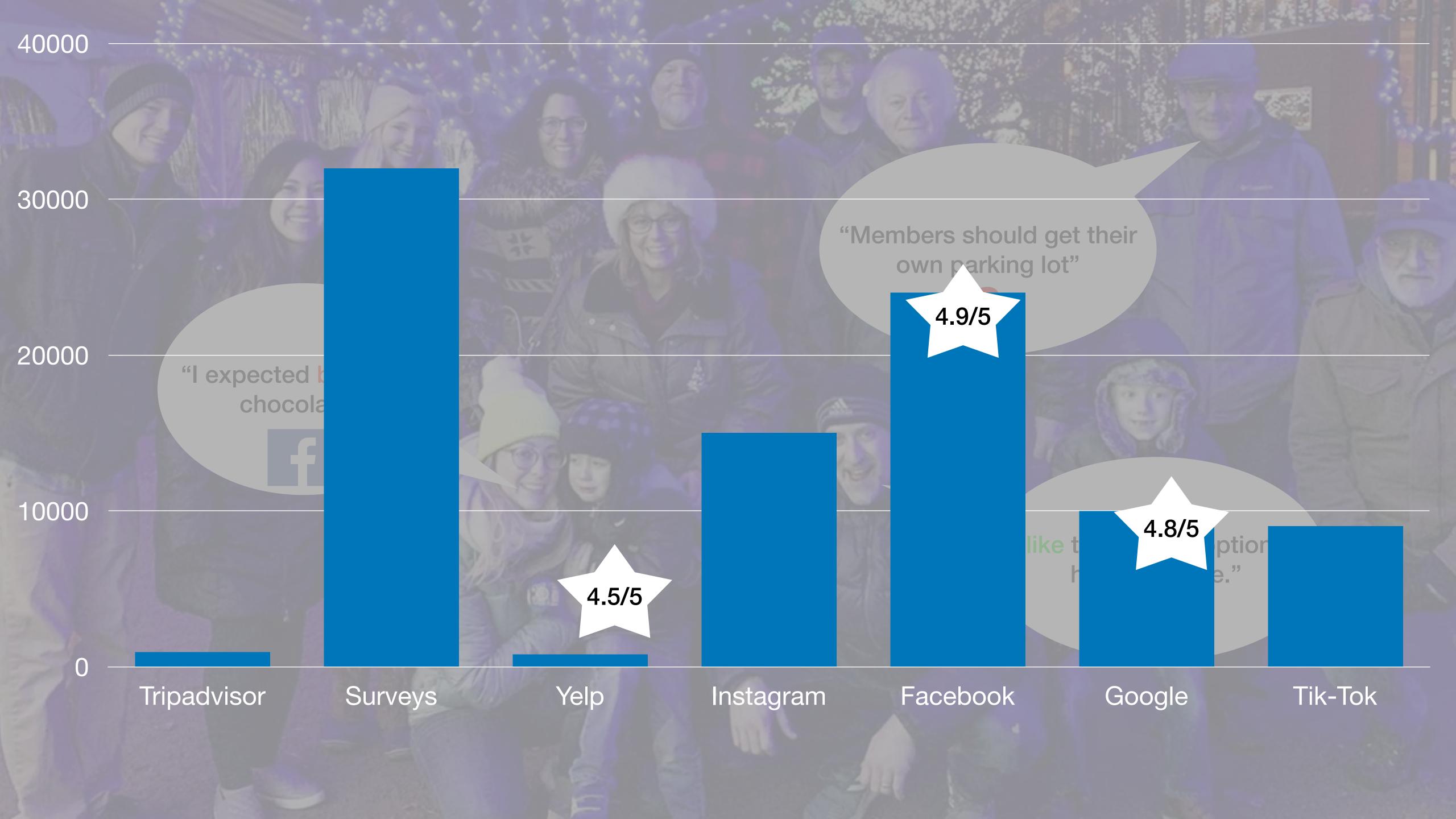


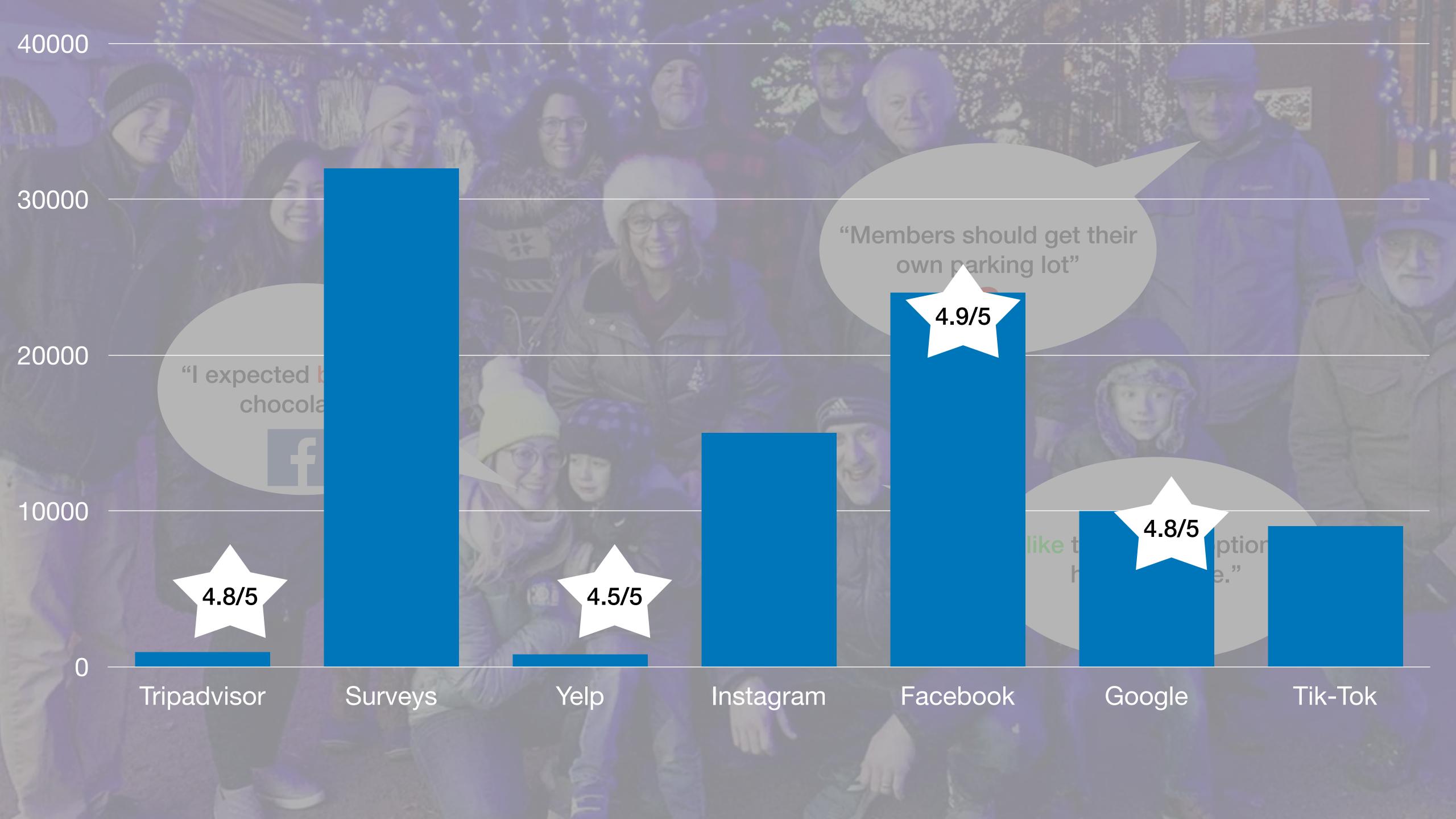
















Did I actually run into the troll from Harry Potter and the Sorcerer's Stone?

#potterhead #wingardiumleviosa #mortonarboretum #birthdayfun



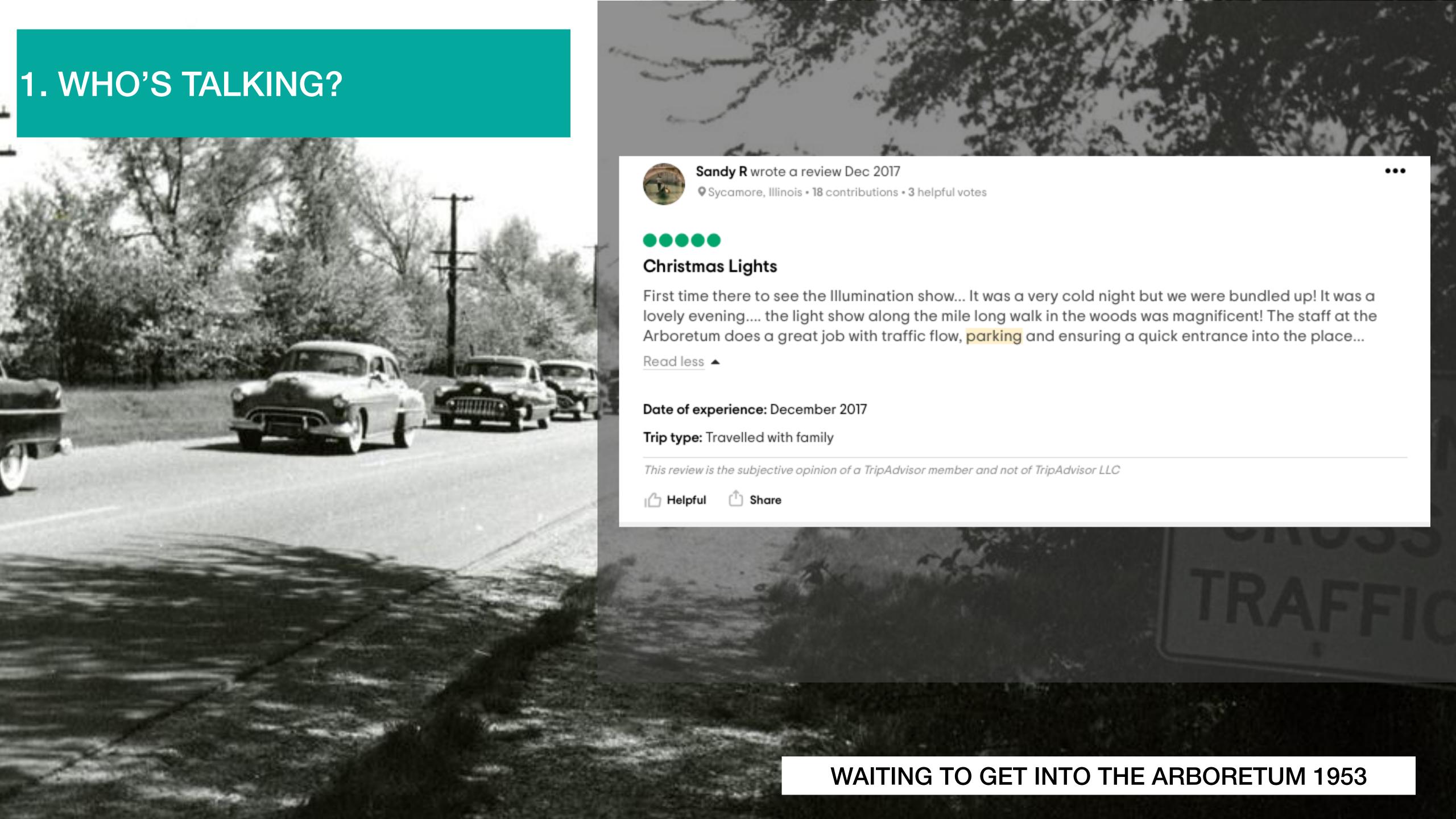
Did I actually run into the troll from Harry Potter and the Sorcerer's Stone?

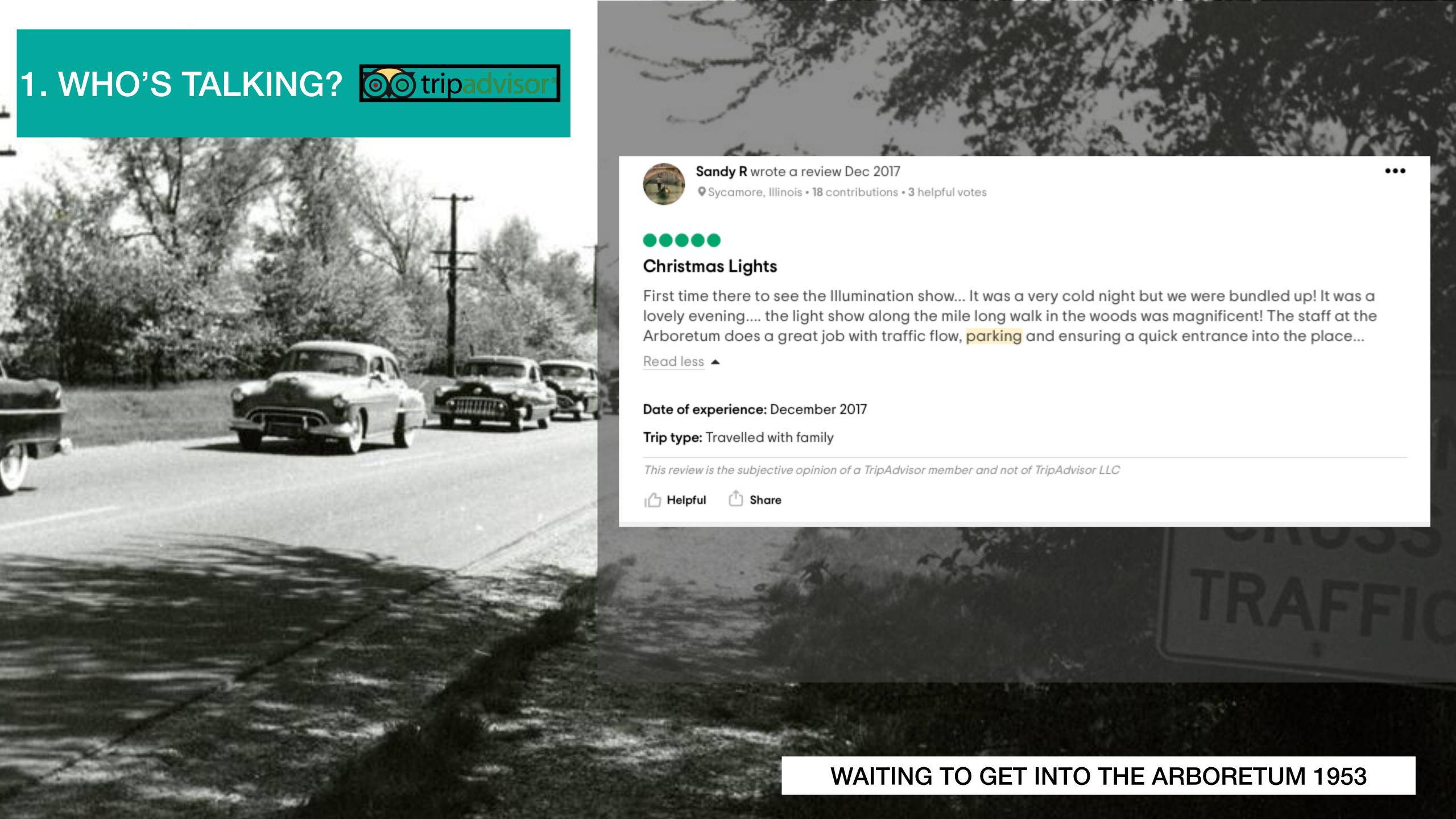
#potterhead #wingardiumleviosa #mortonarboretum #birthdayfun











1. WHO'S TALKING? on tripadvisor





Sandy R from Sycamore, Illinois Dec. 2017



Sandy R wrote a review Dec 2017

♥ Sycamore, Illinois • 18 contributions • 3 helpful votes



Christmas Lights

First time there to see the Illumination show... It was a very cold night but we were bundled up! It was a lovely evening.... the light show along the mile long walk in the woods was magnificent! The staff at the Arboretum does a great job with traffic flow, parking and ensuring a quick entrance into the place...

Read less 🔺

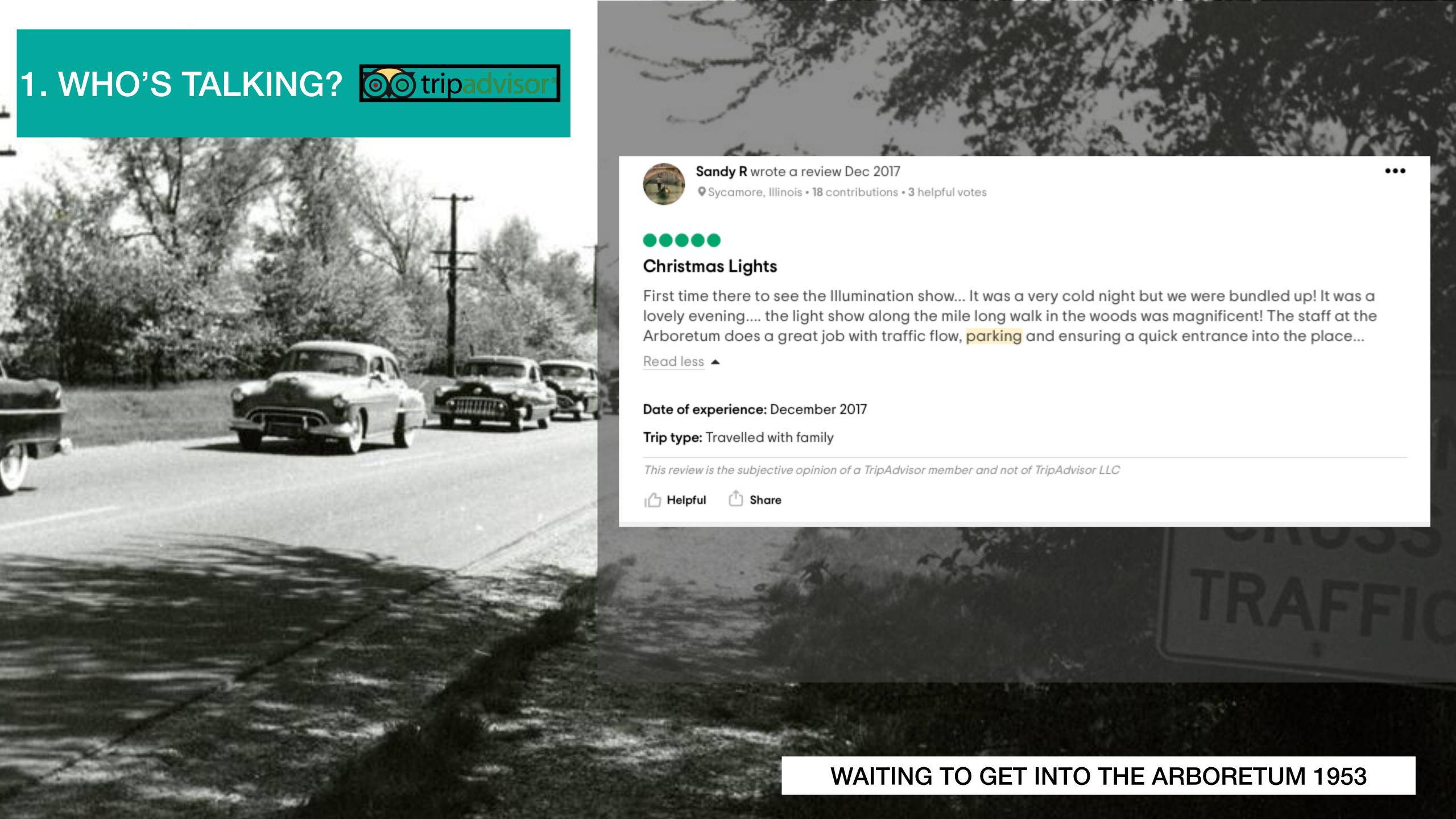
Date of experience: December 2017

Trip type: Travelled with family

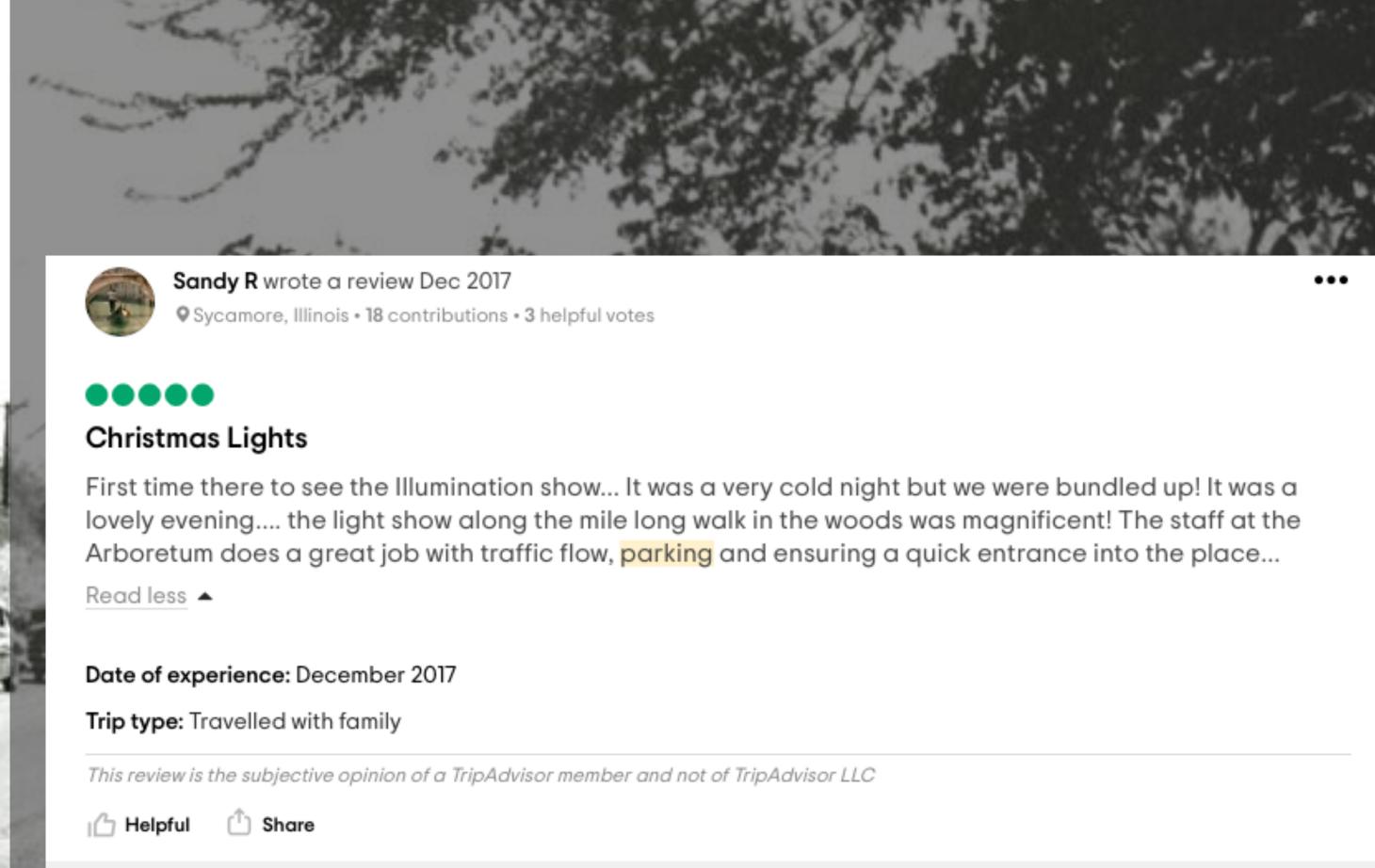
This review is the subjective opinion of a TripAdvisor member and not of TripAdvisor LLC

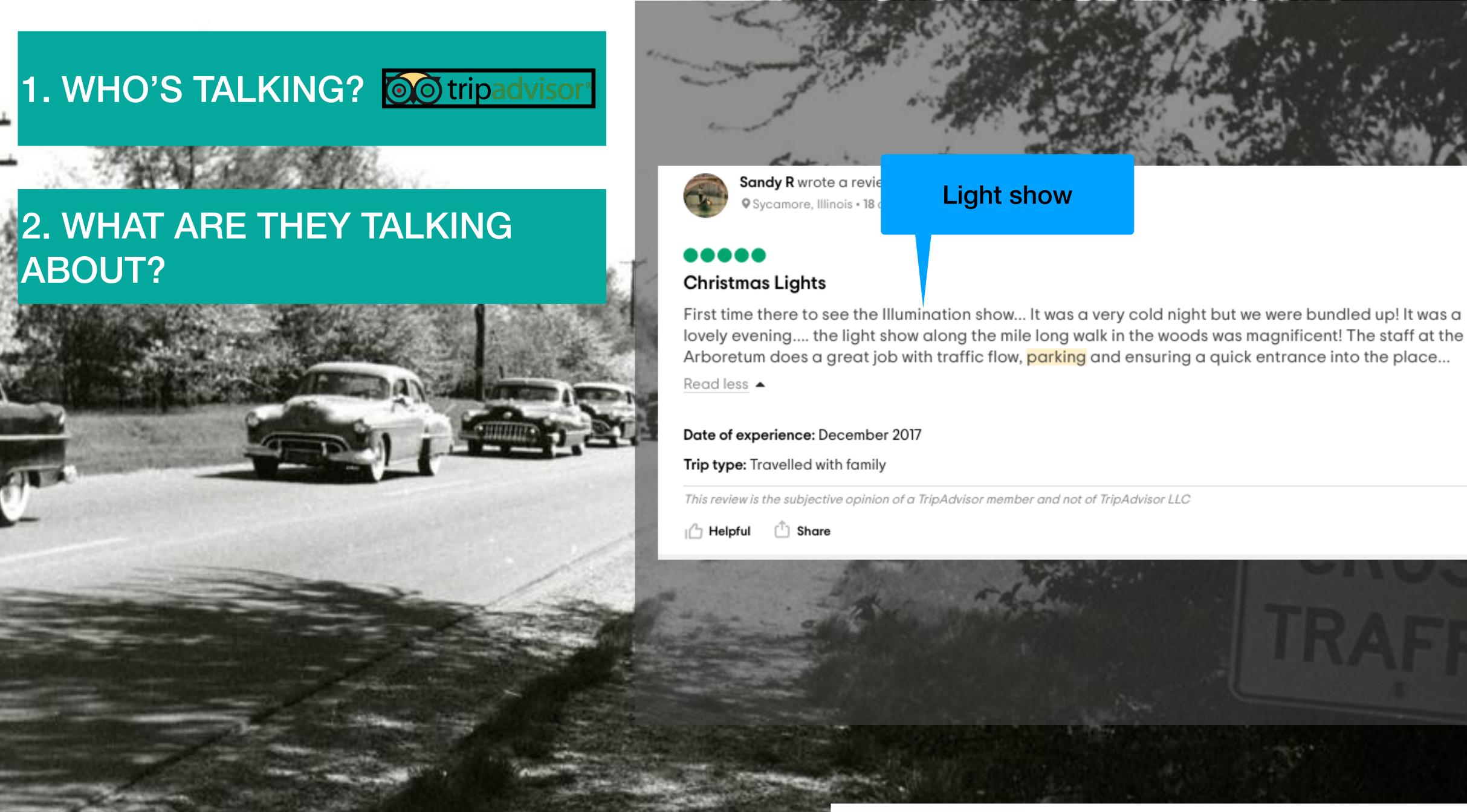




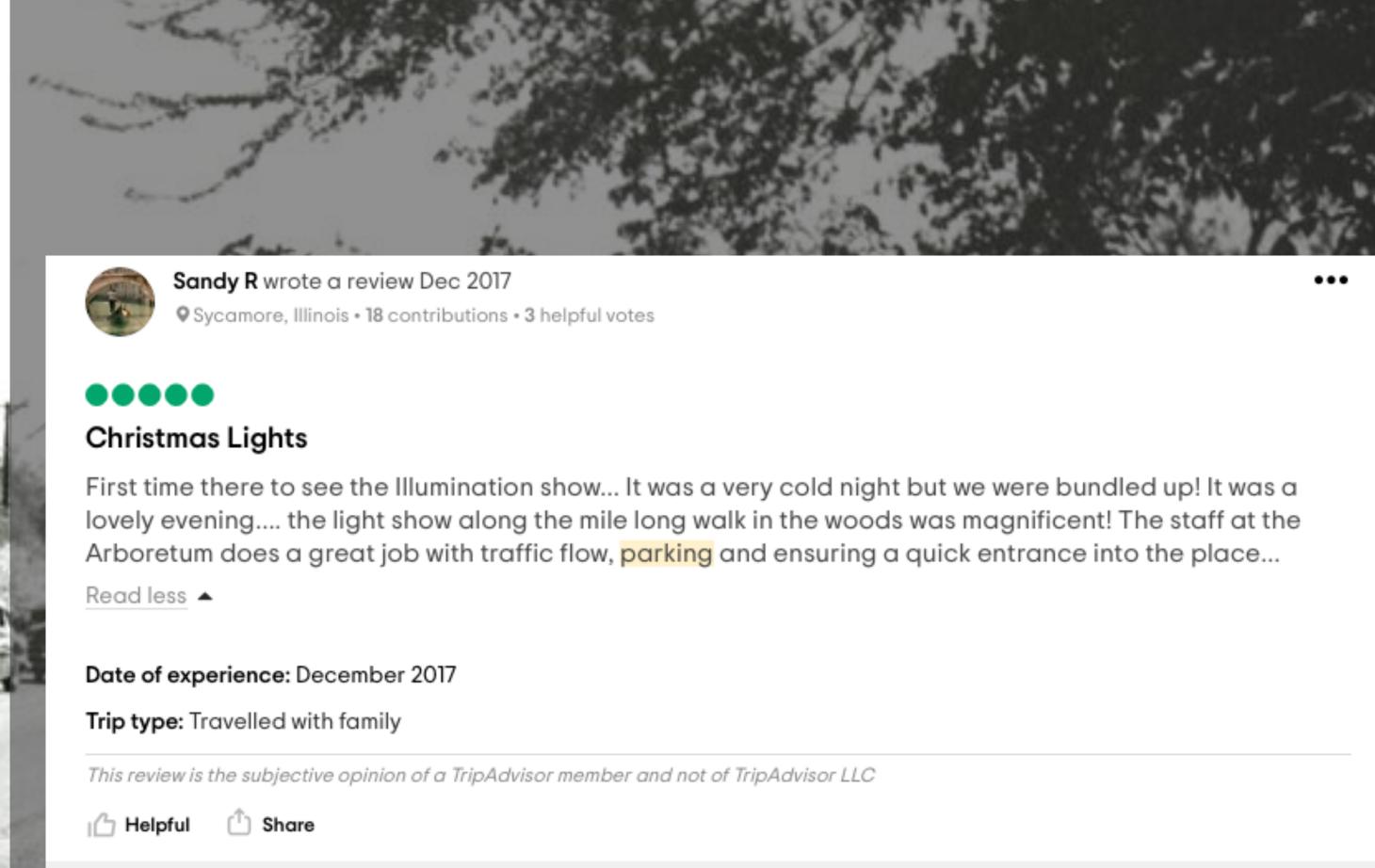


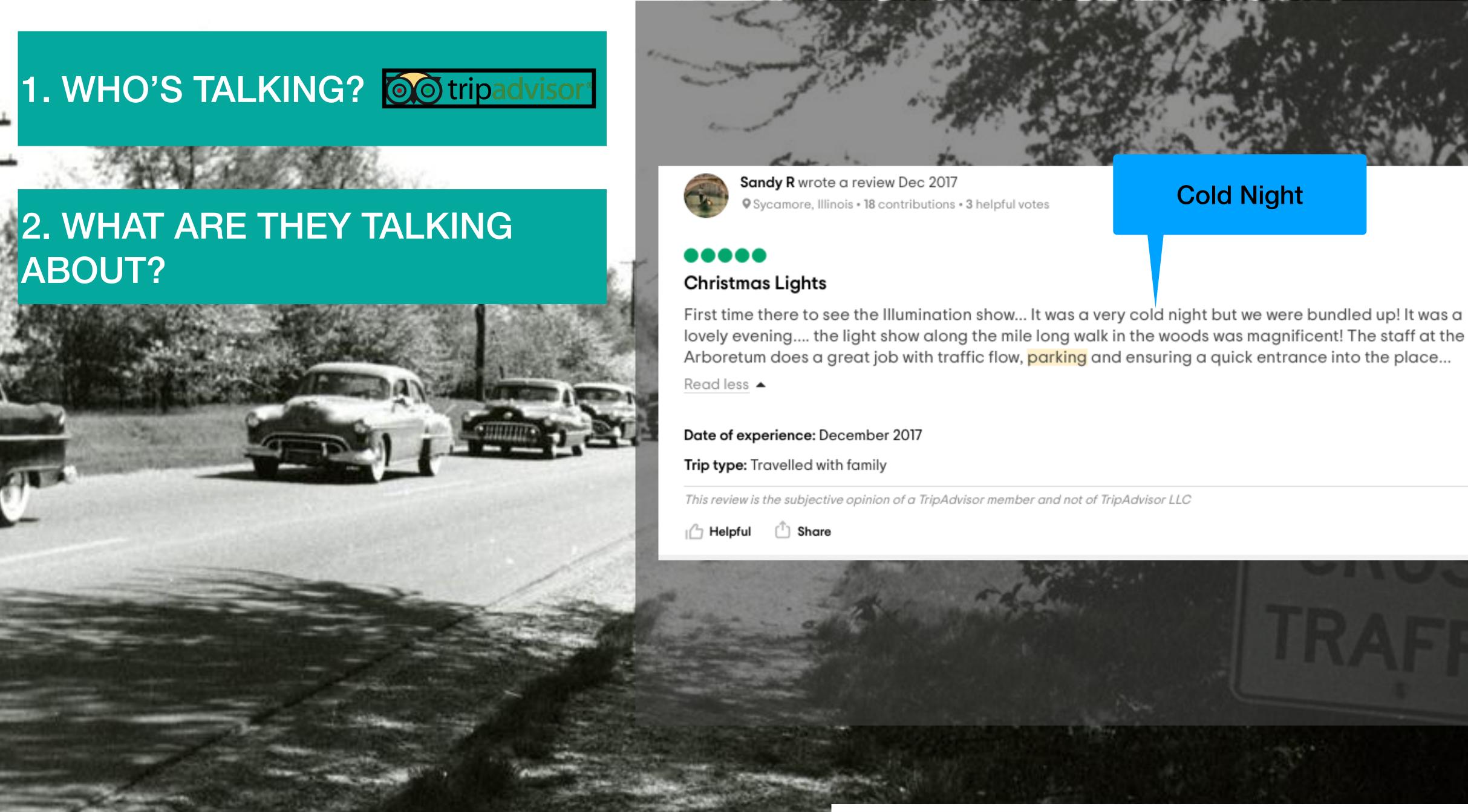




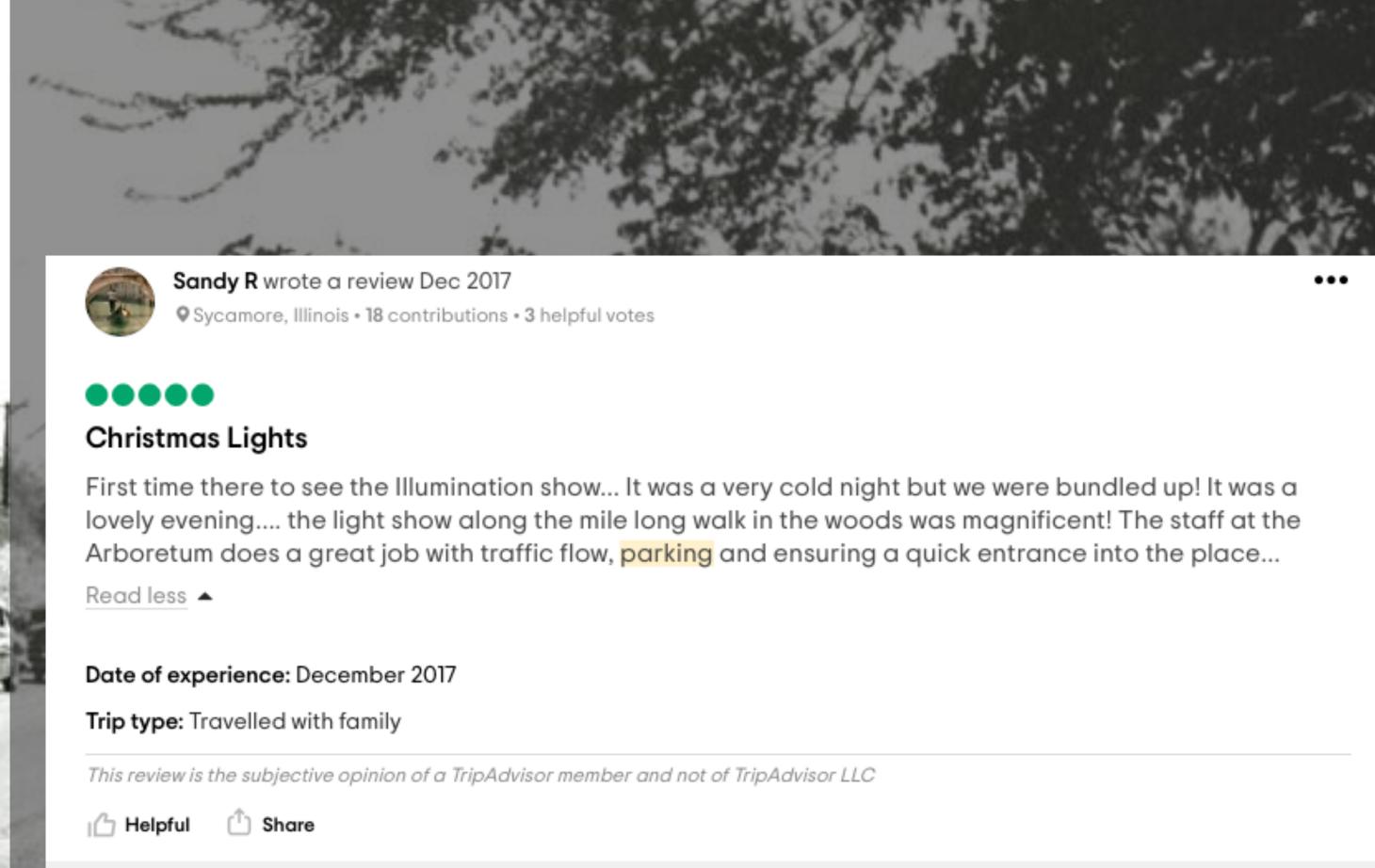


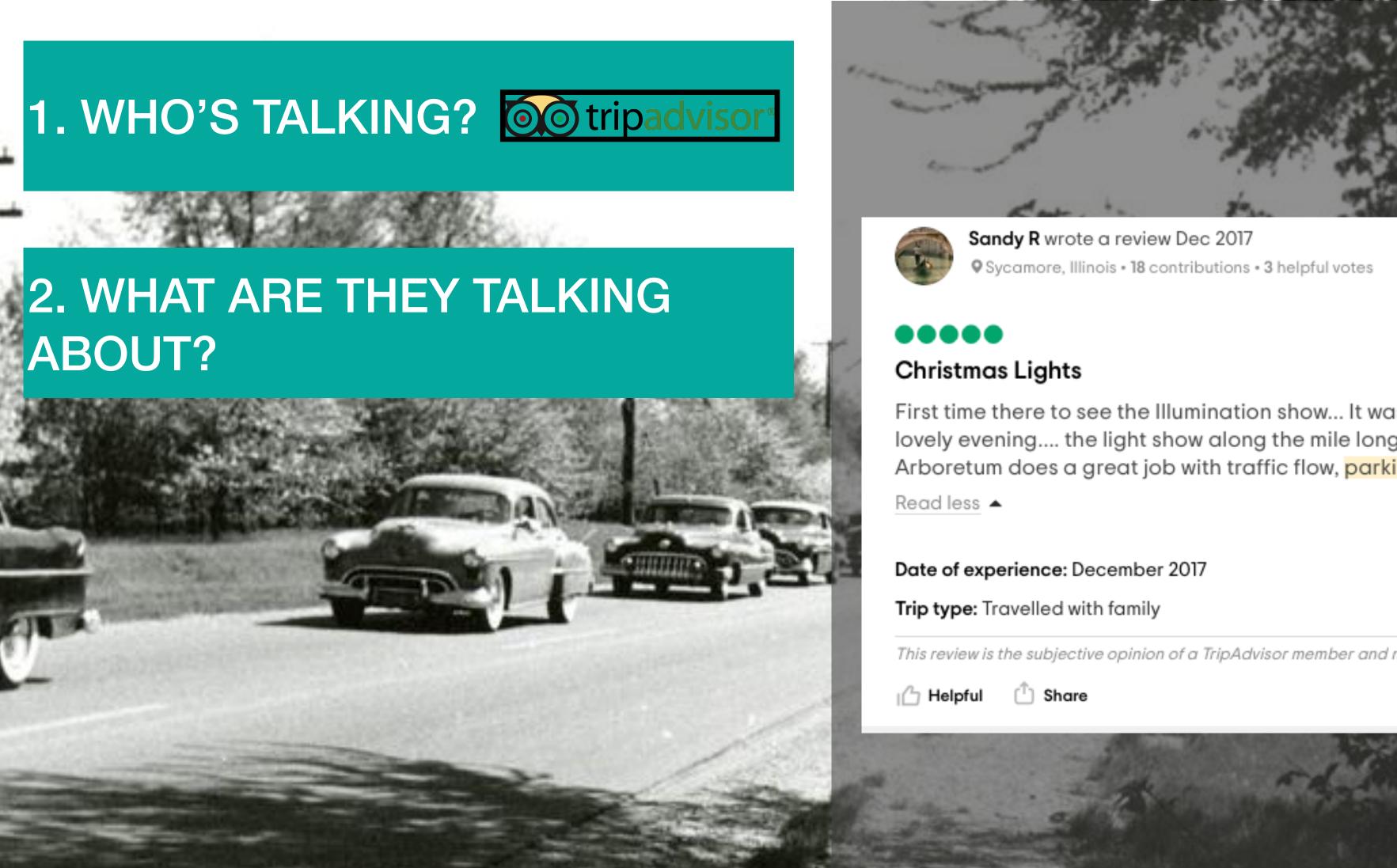






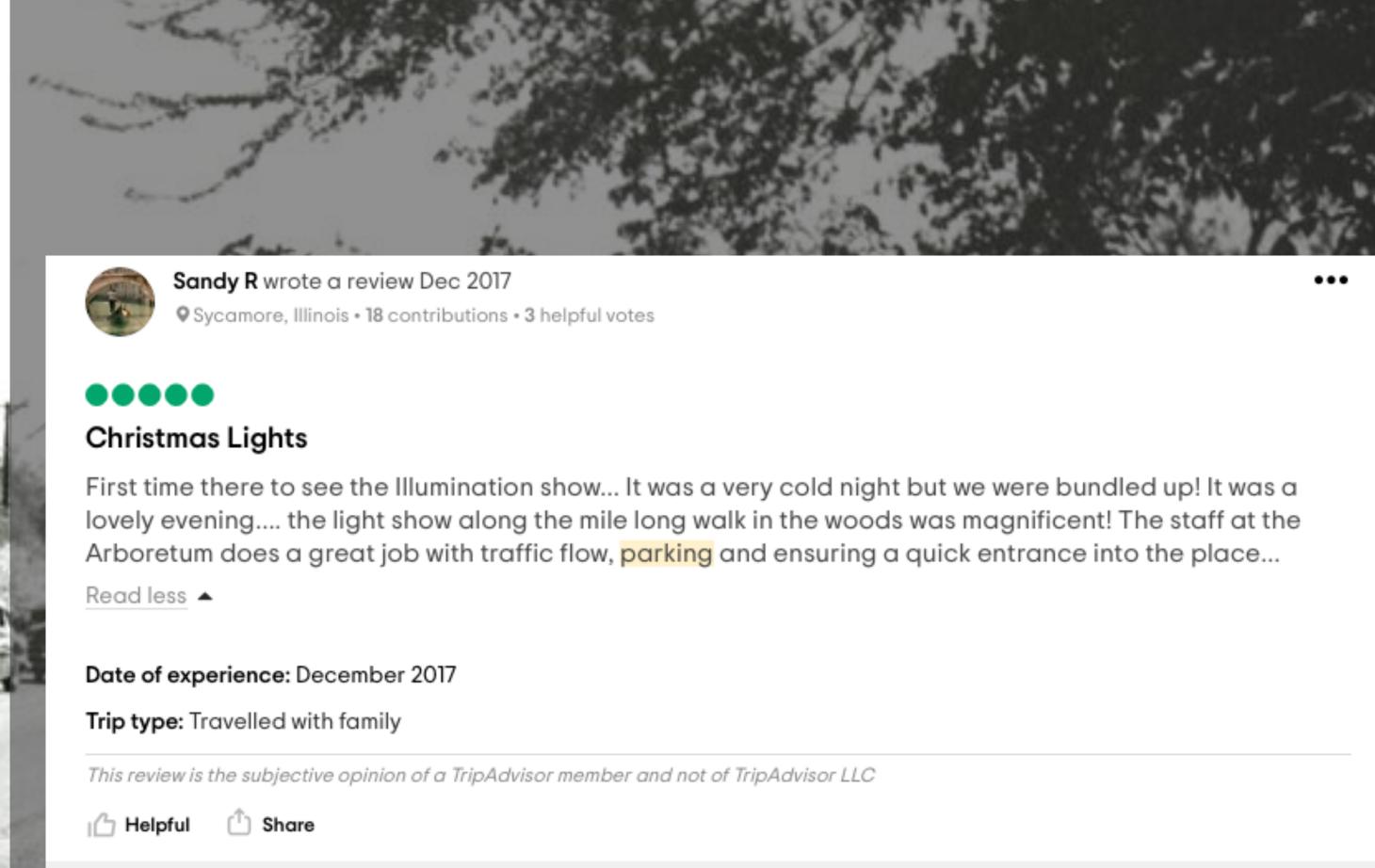


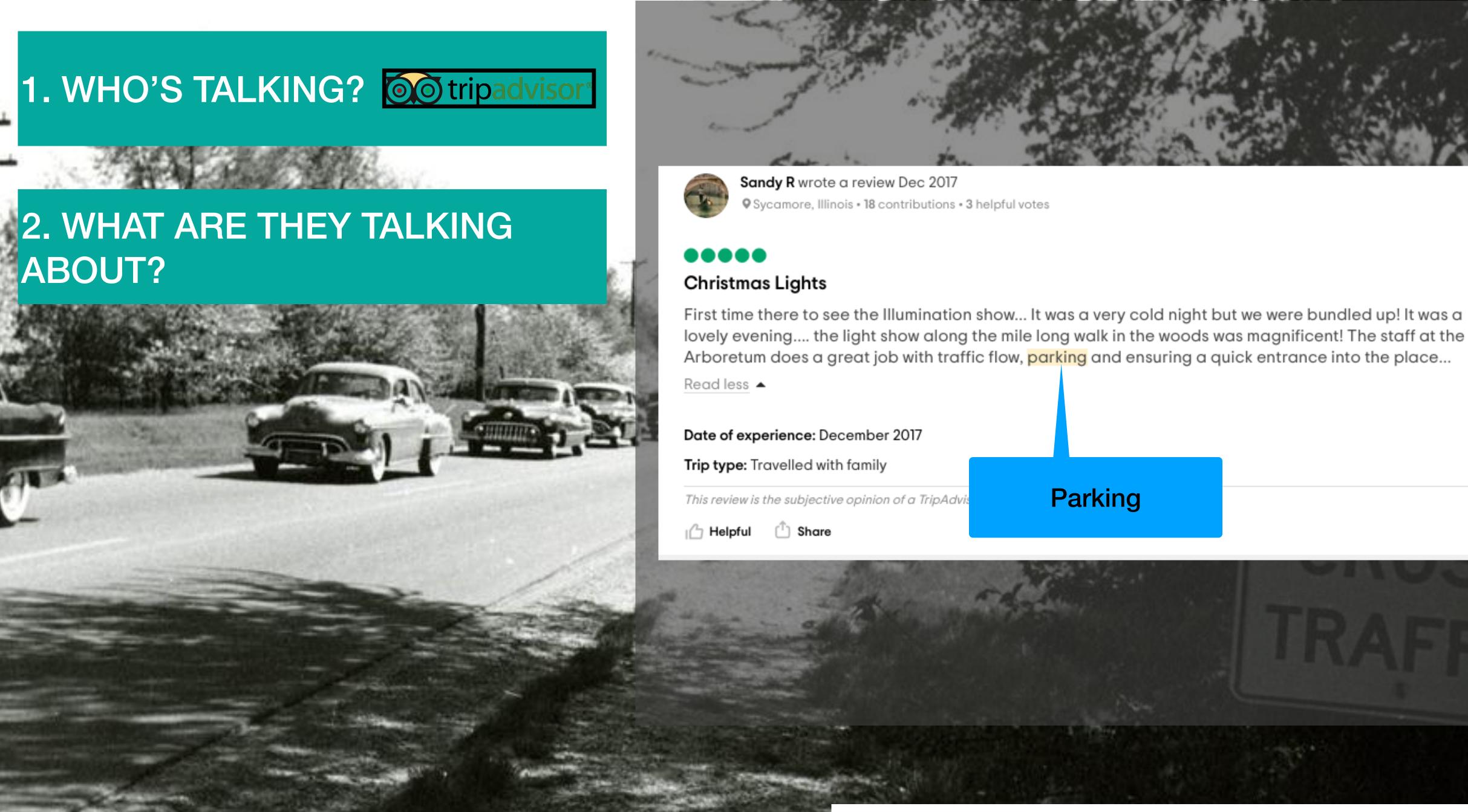




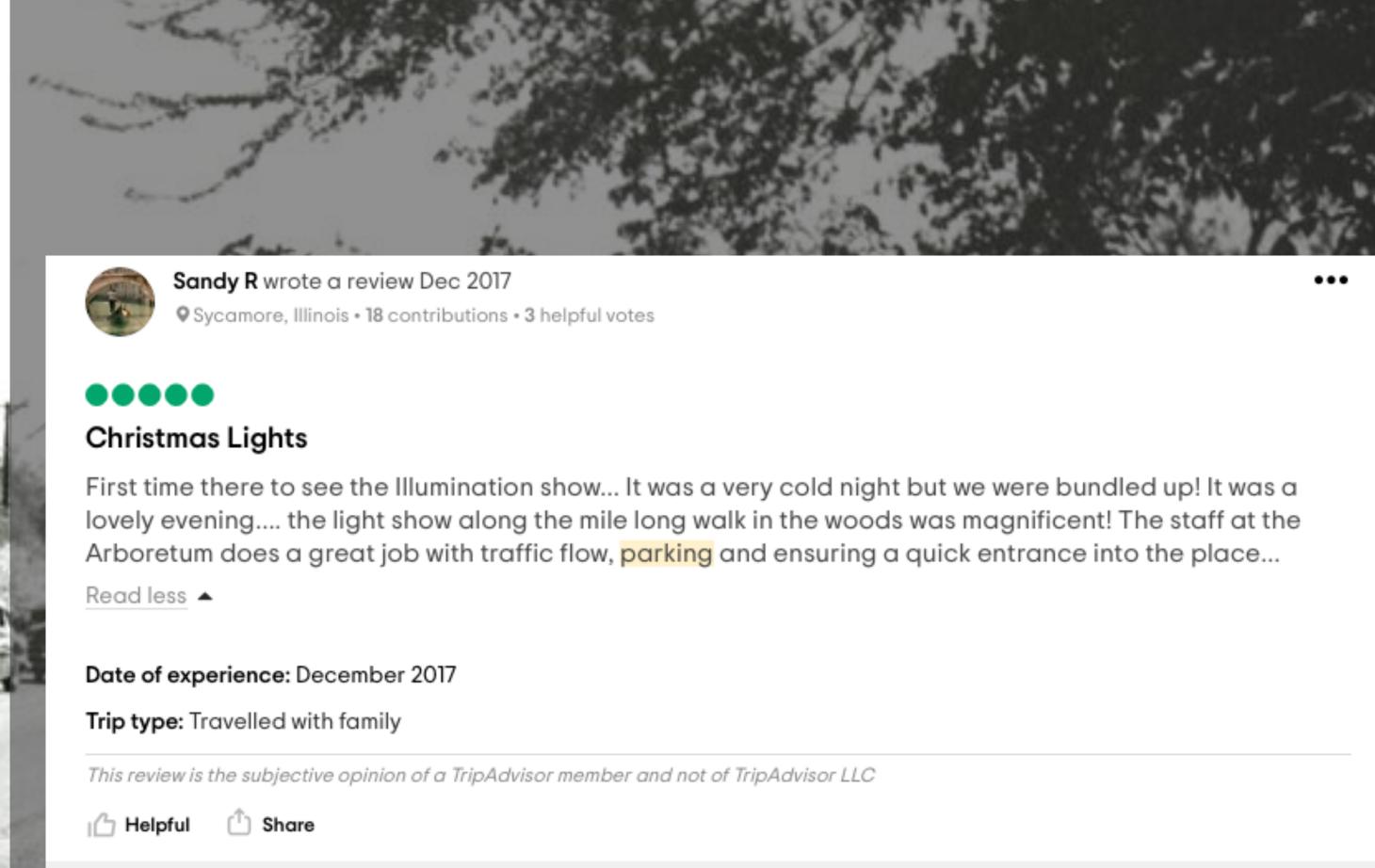
First time there to see the Illumination show... It was a very cold night but we were bundled up! It was a lovely evening.... the light show along the mile long walk in the woods was magnificent! The staff at the Arboretum does a great job with traffic flow, parking and ensuring a quick entrance into the place... This review is the subjective opinion of a TripAdvisor member and not of TripAdvisor LLC Staff

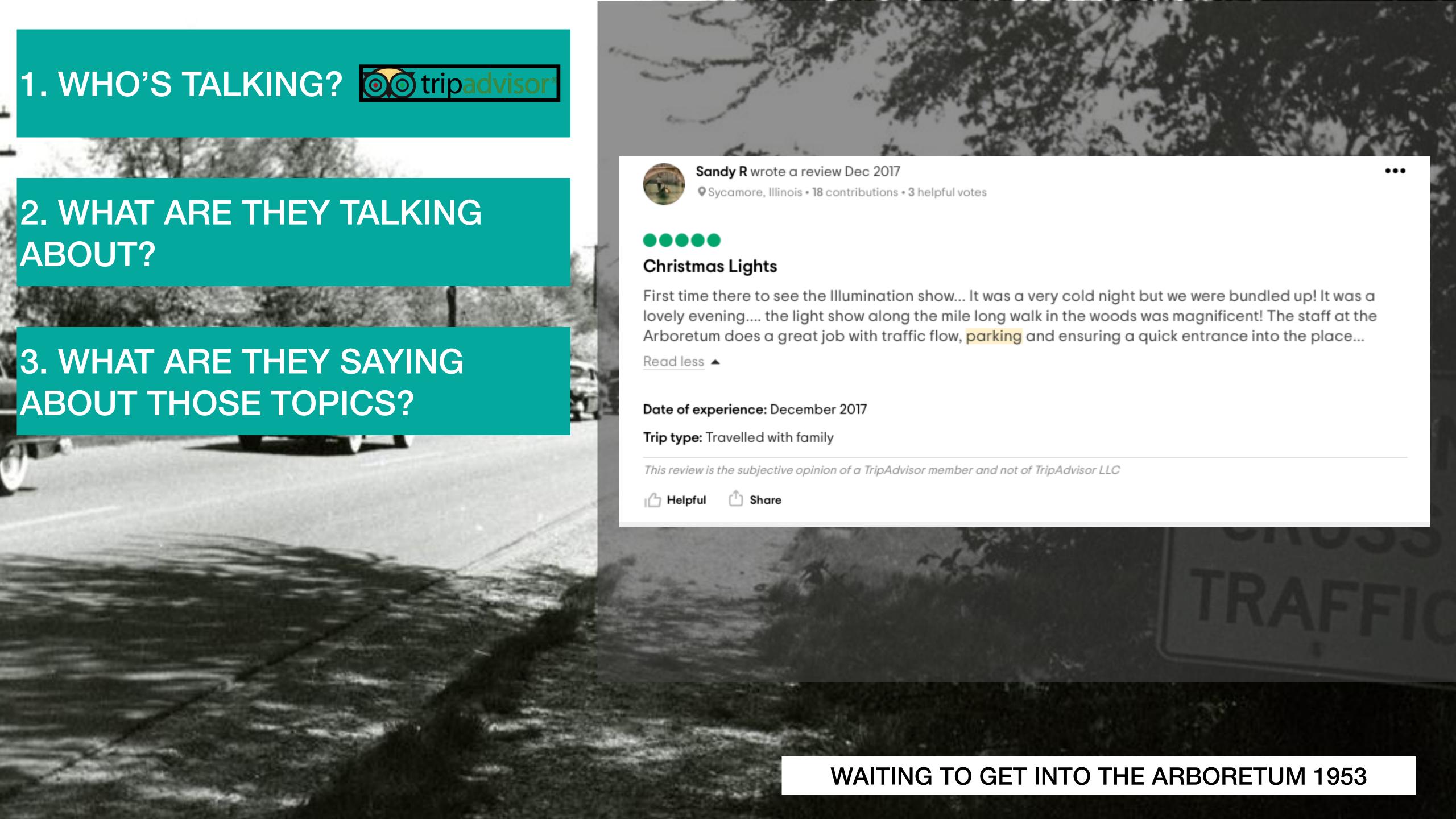


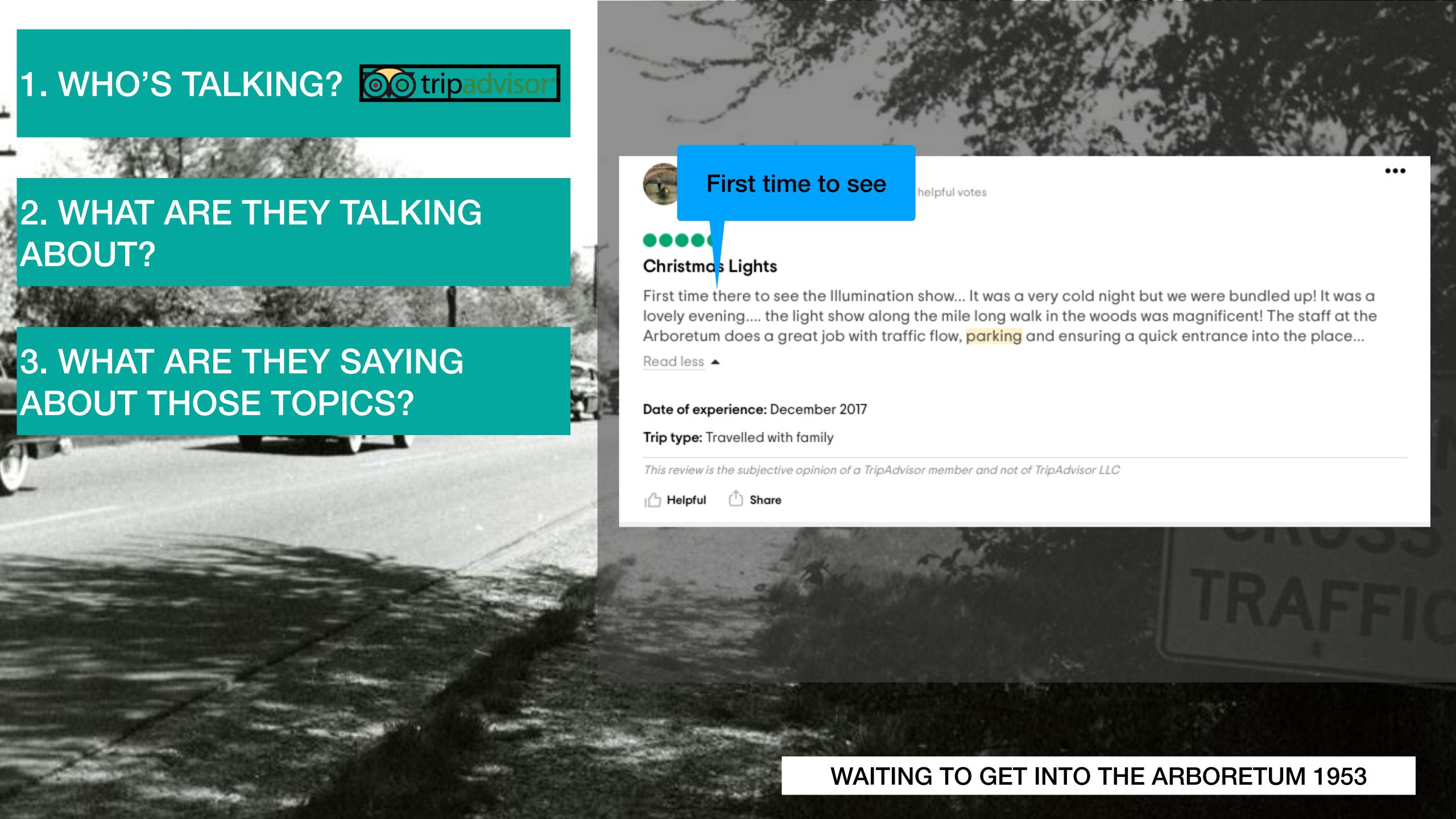


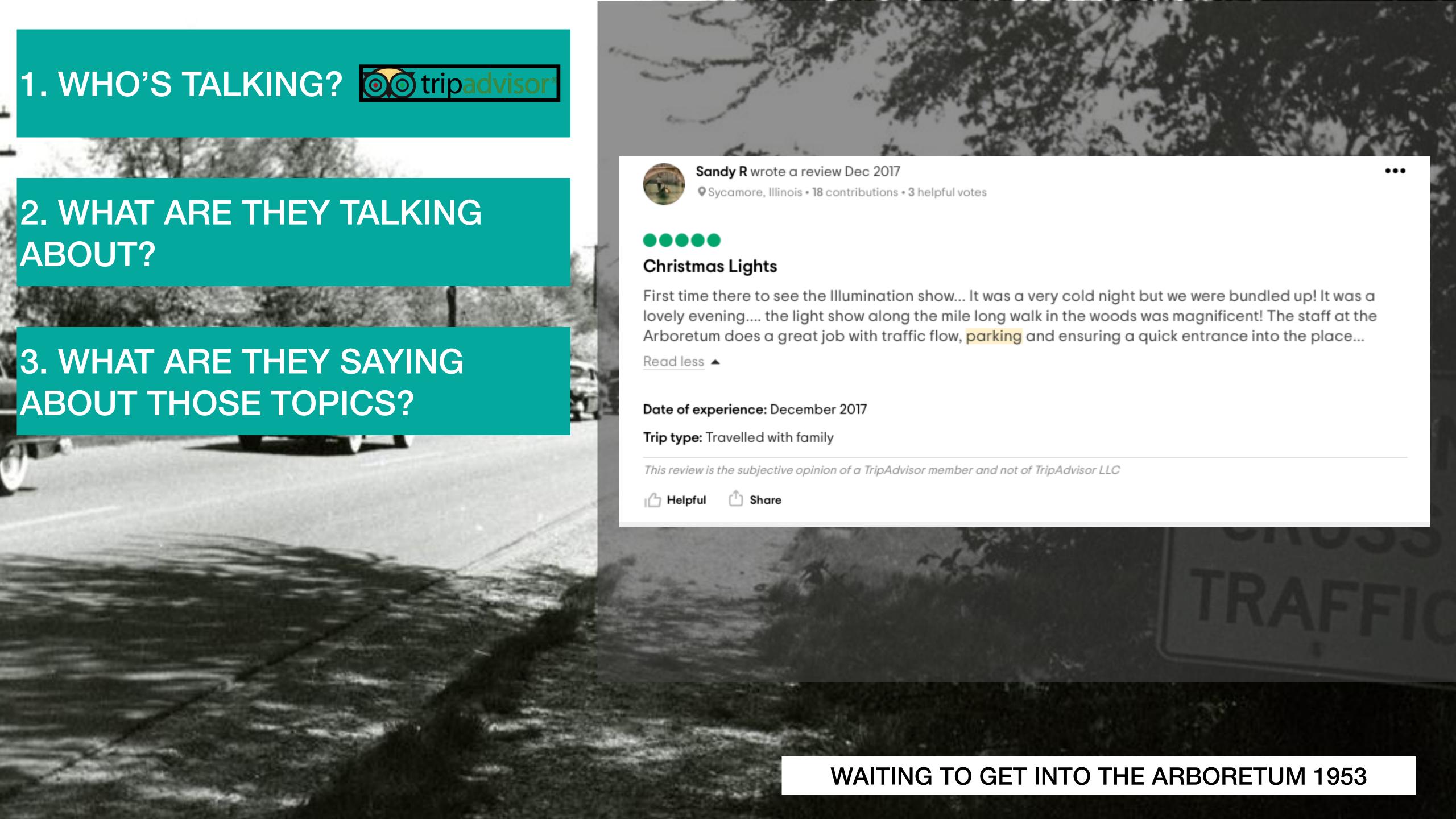


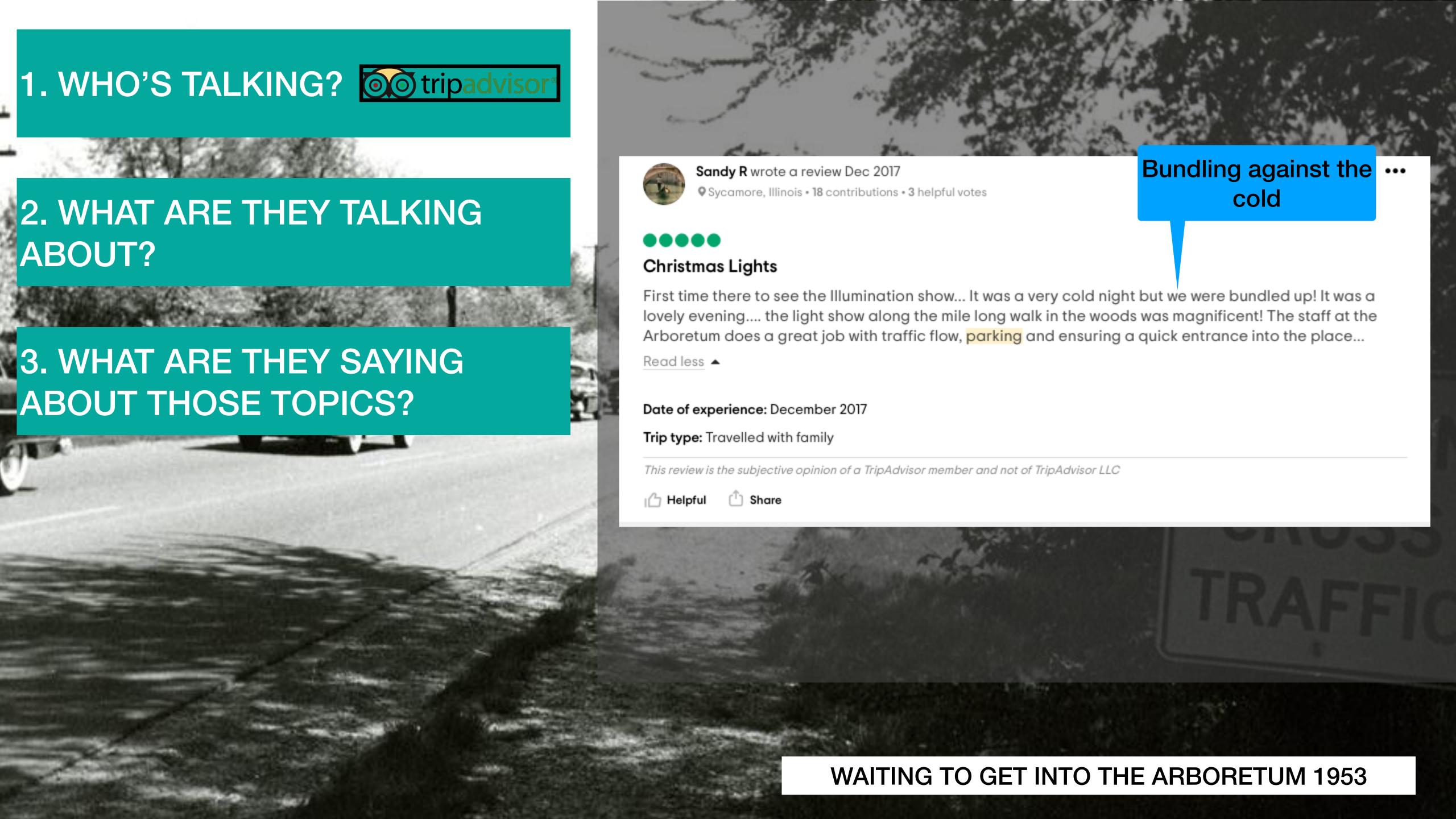


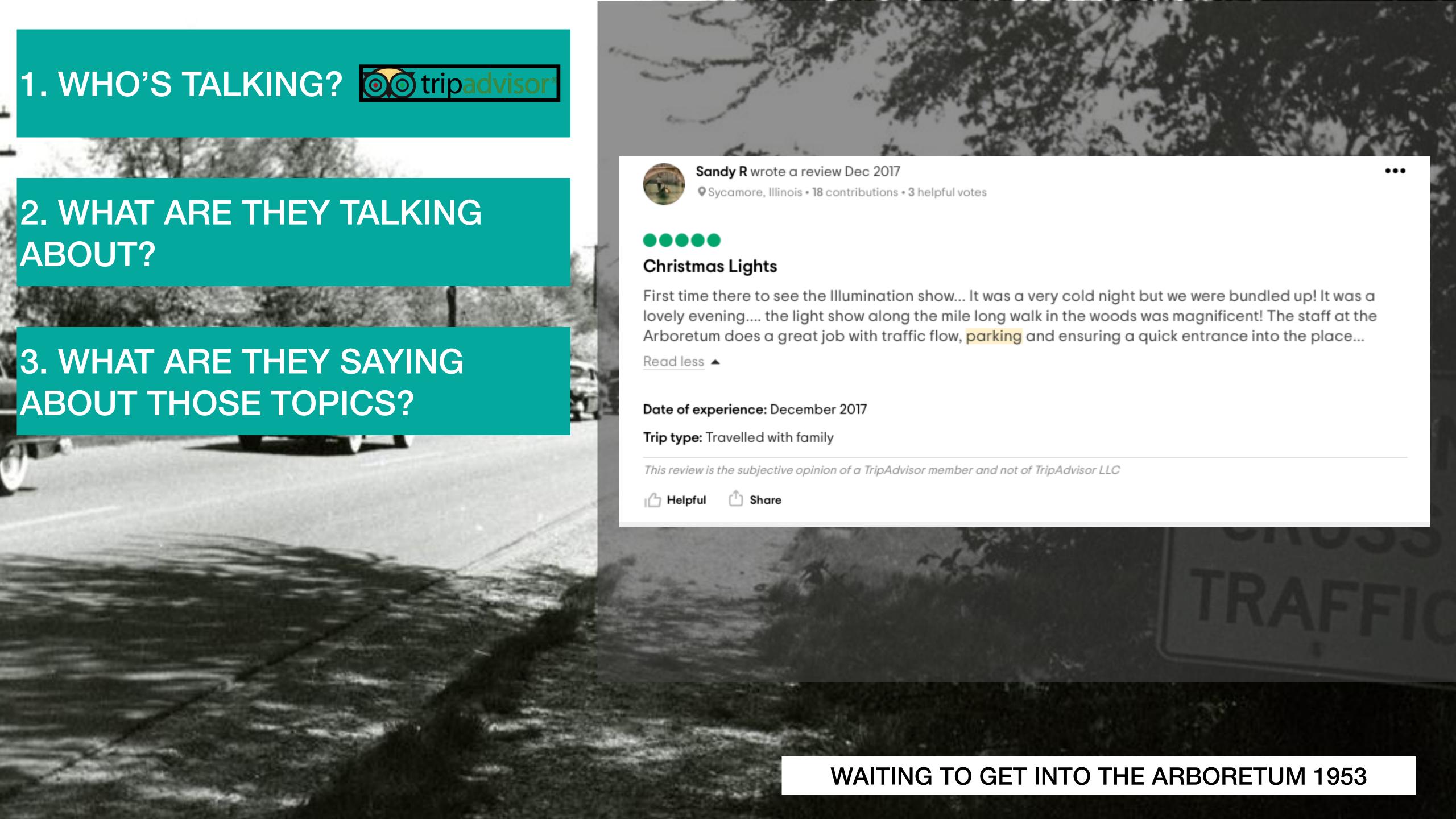


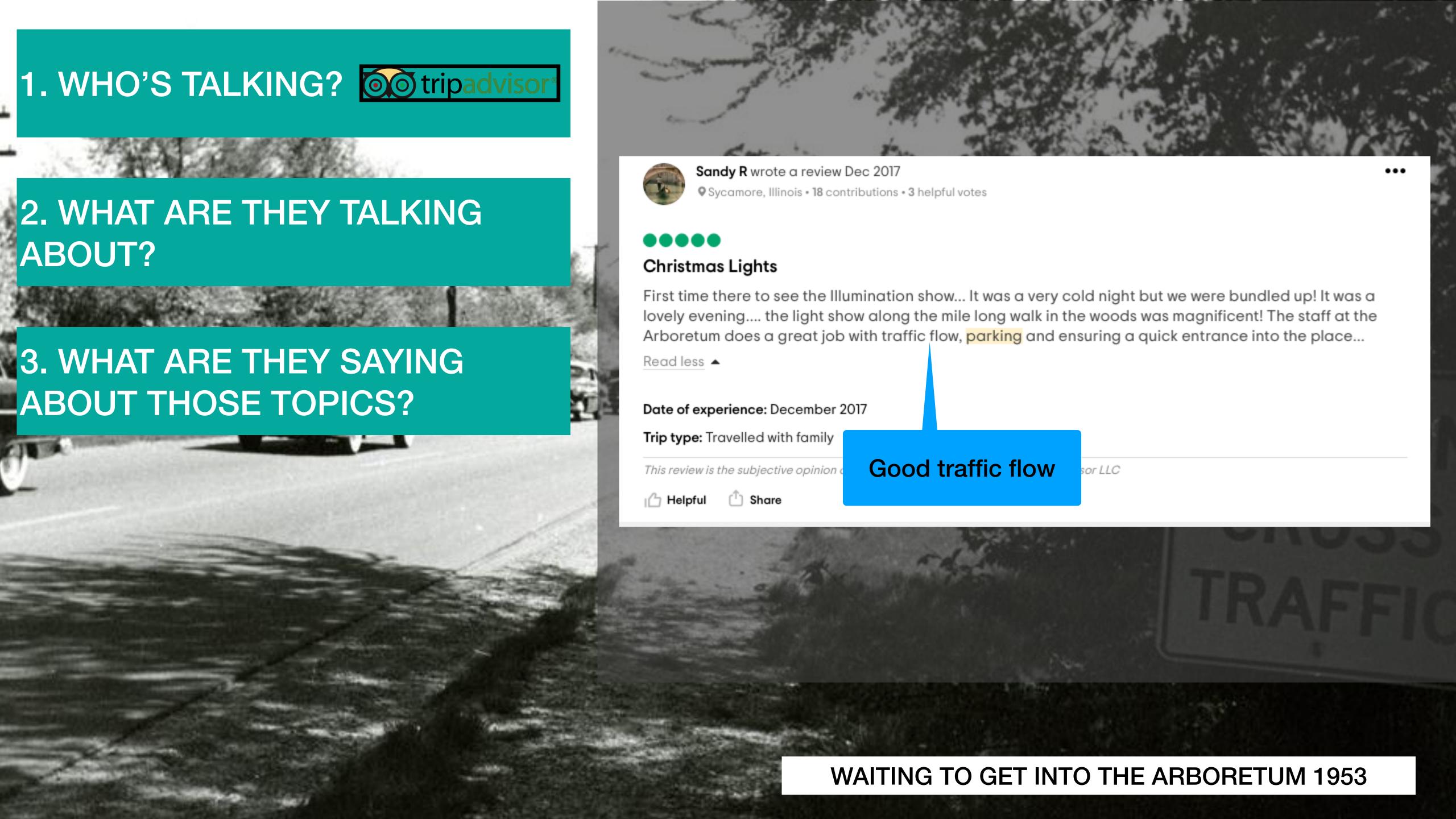


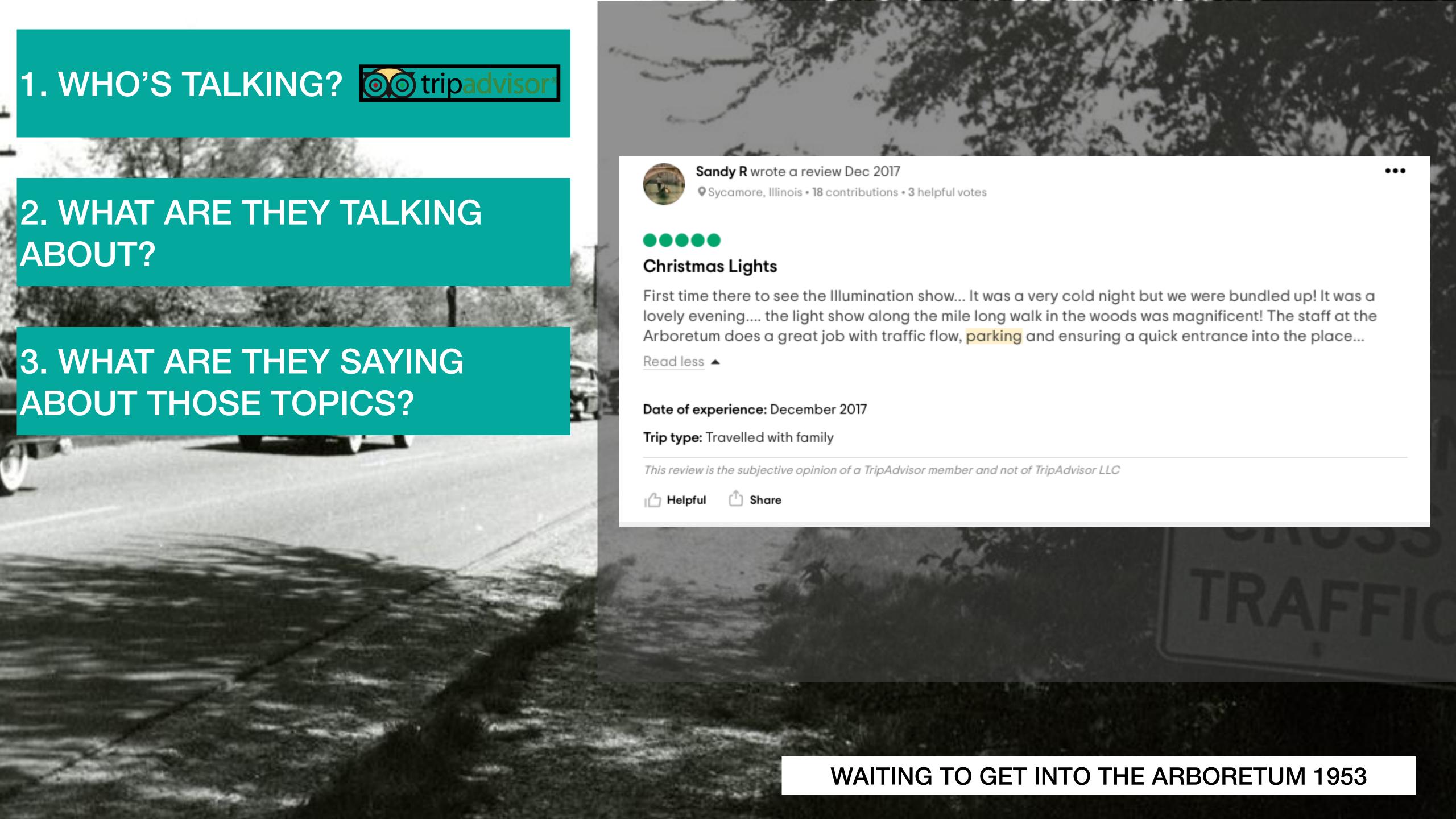


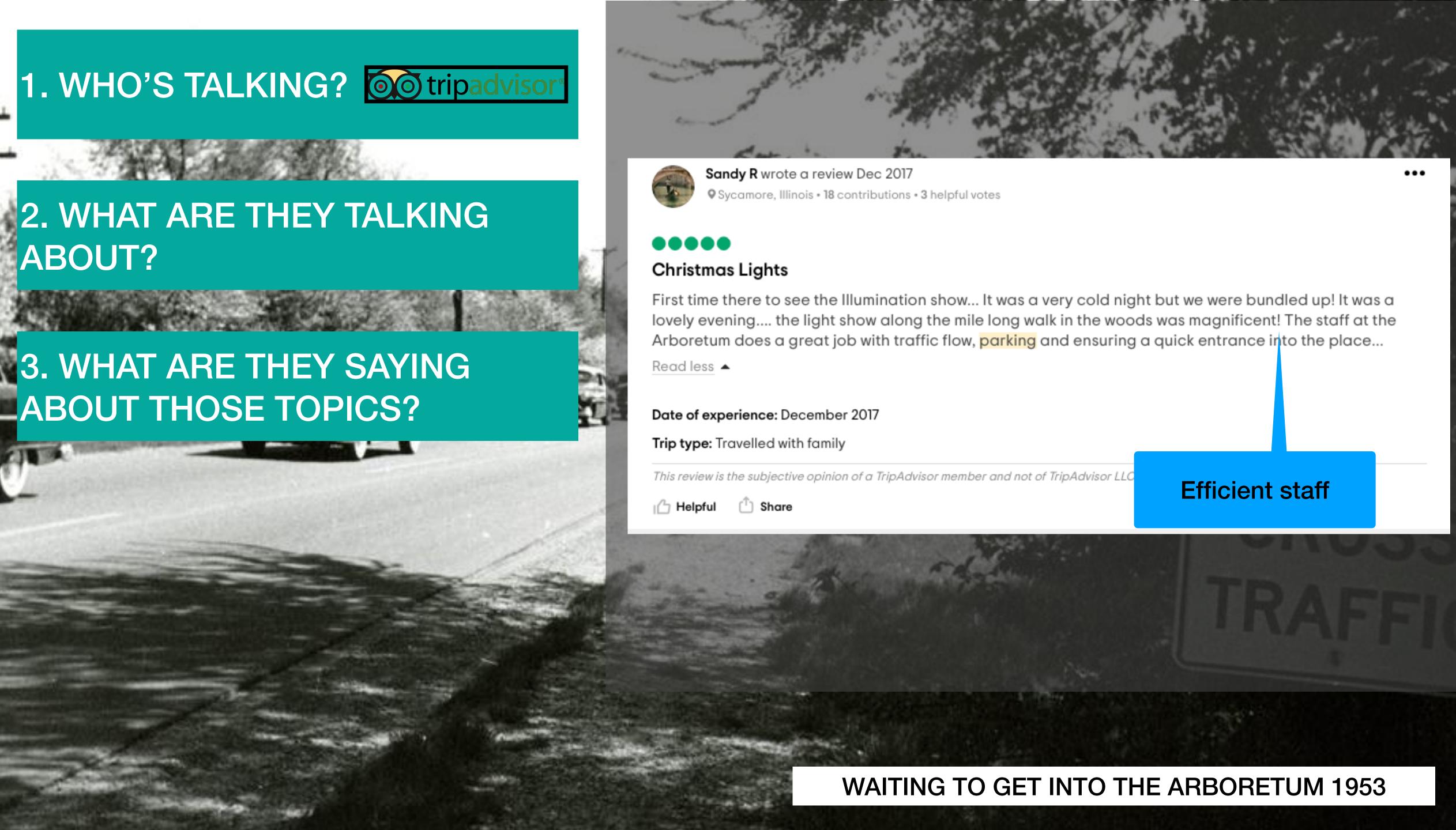


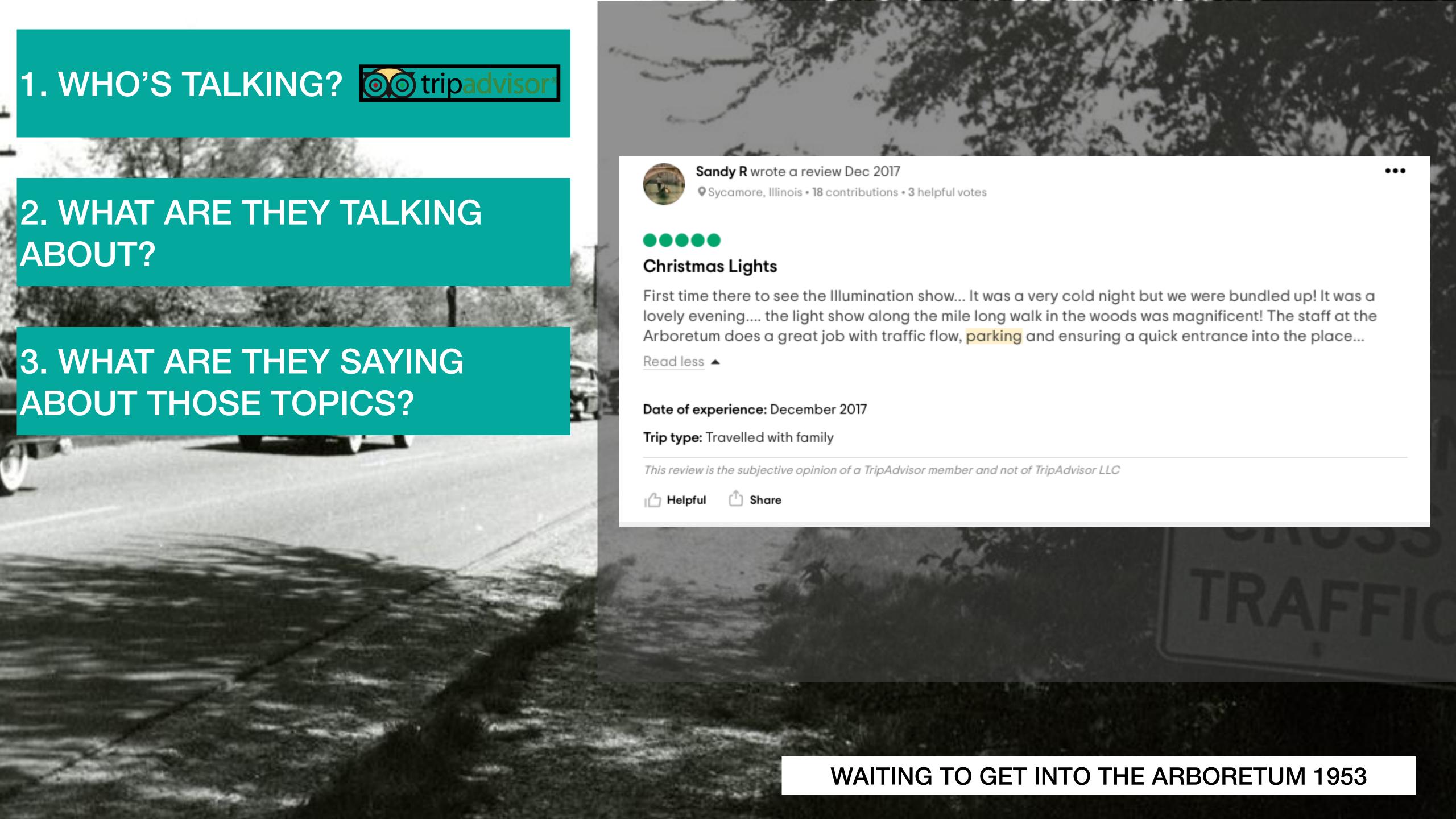


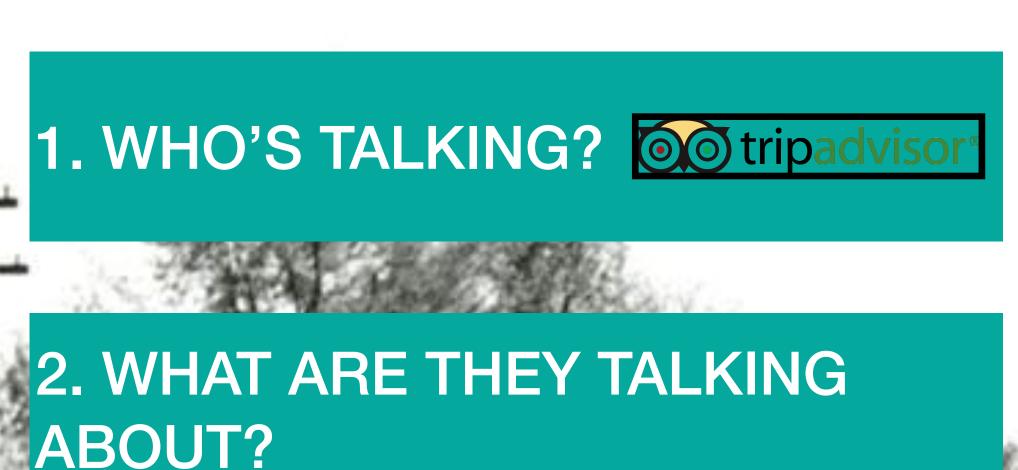






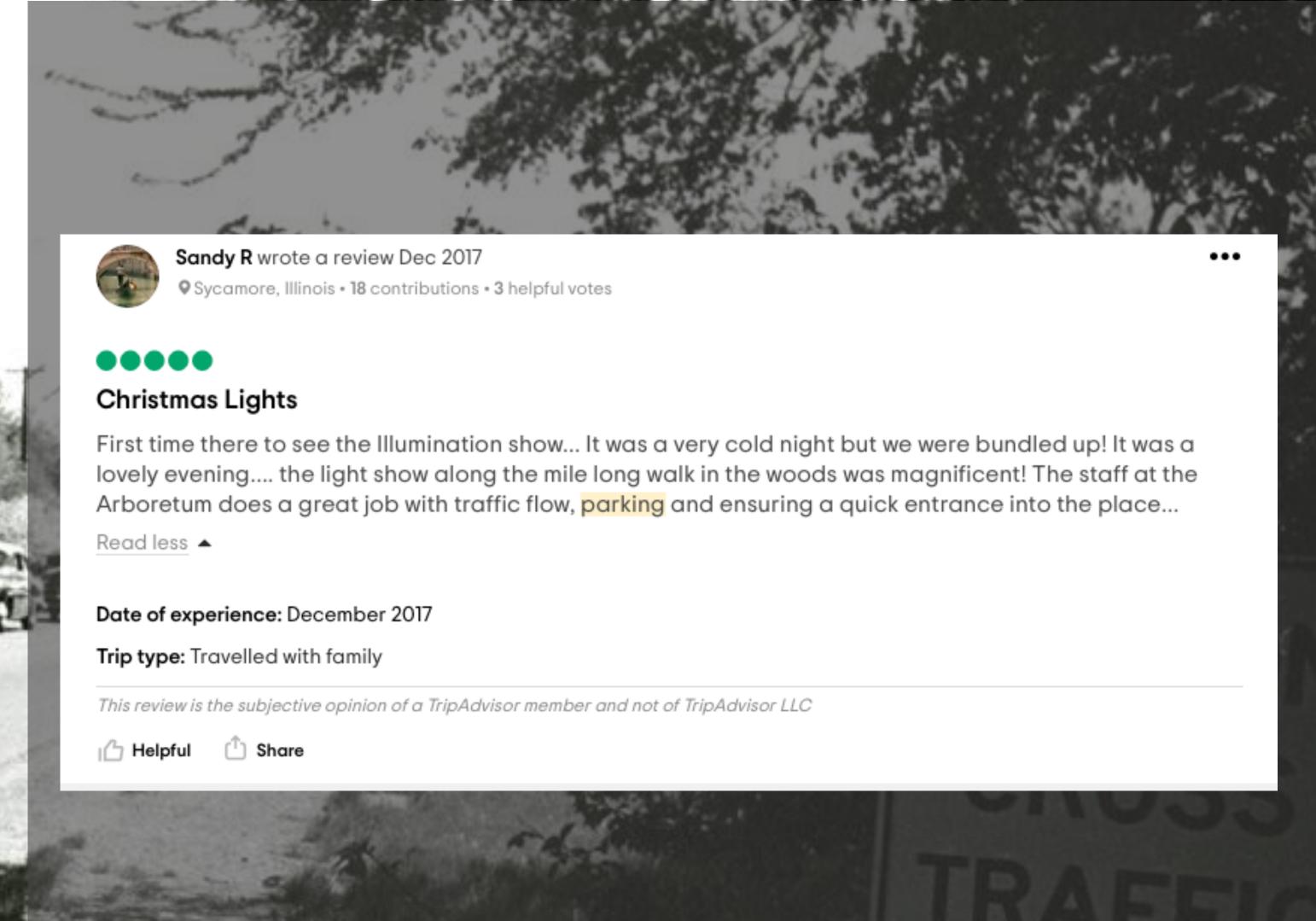




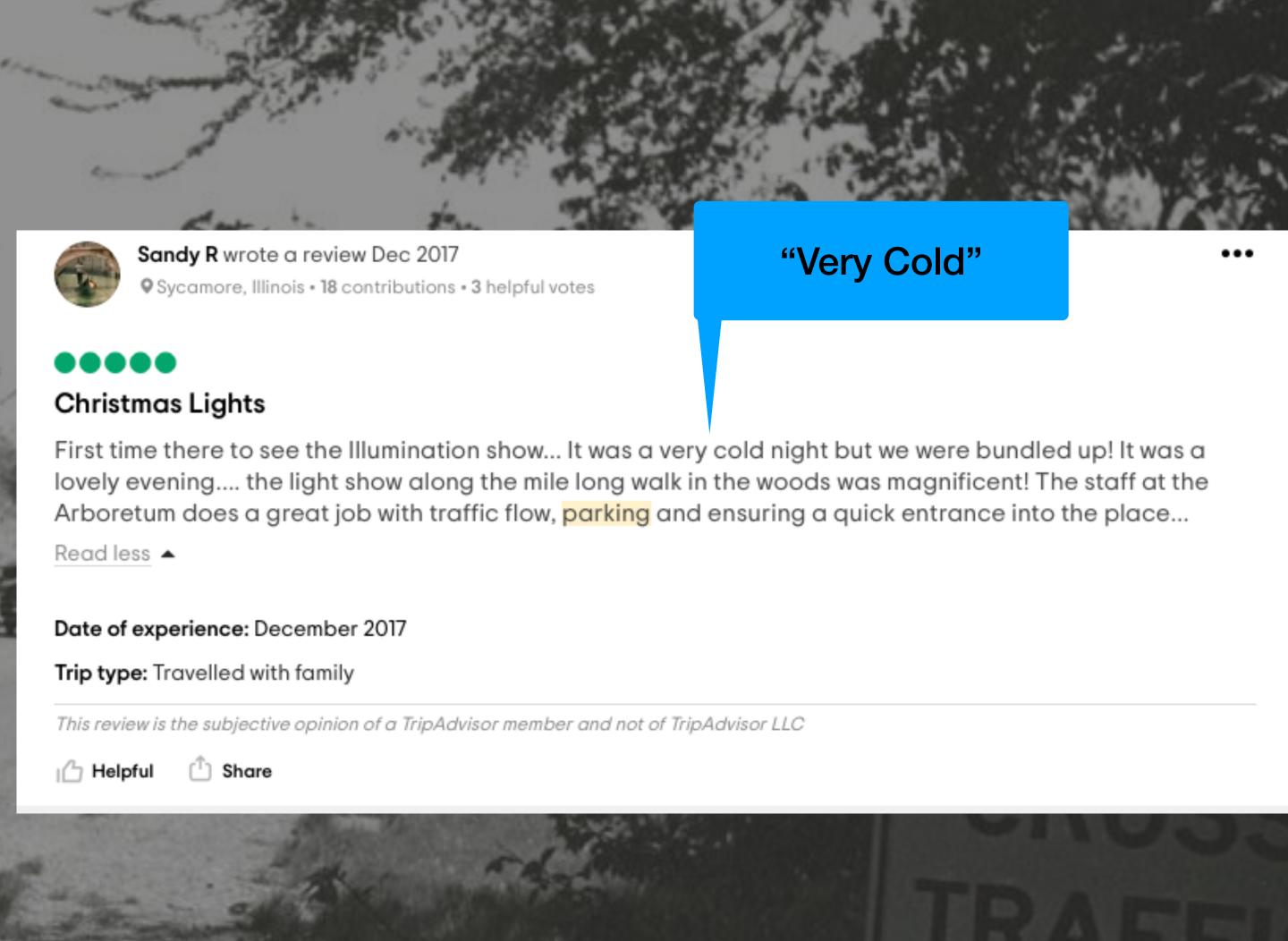


3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

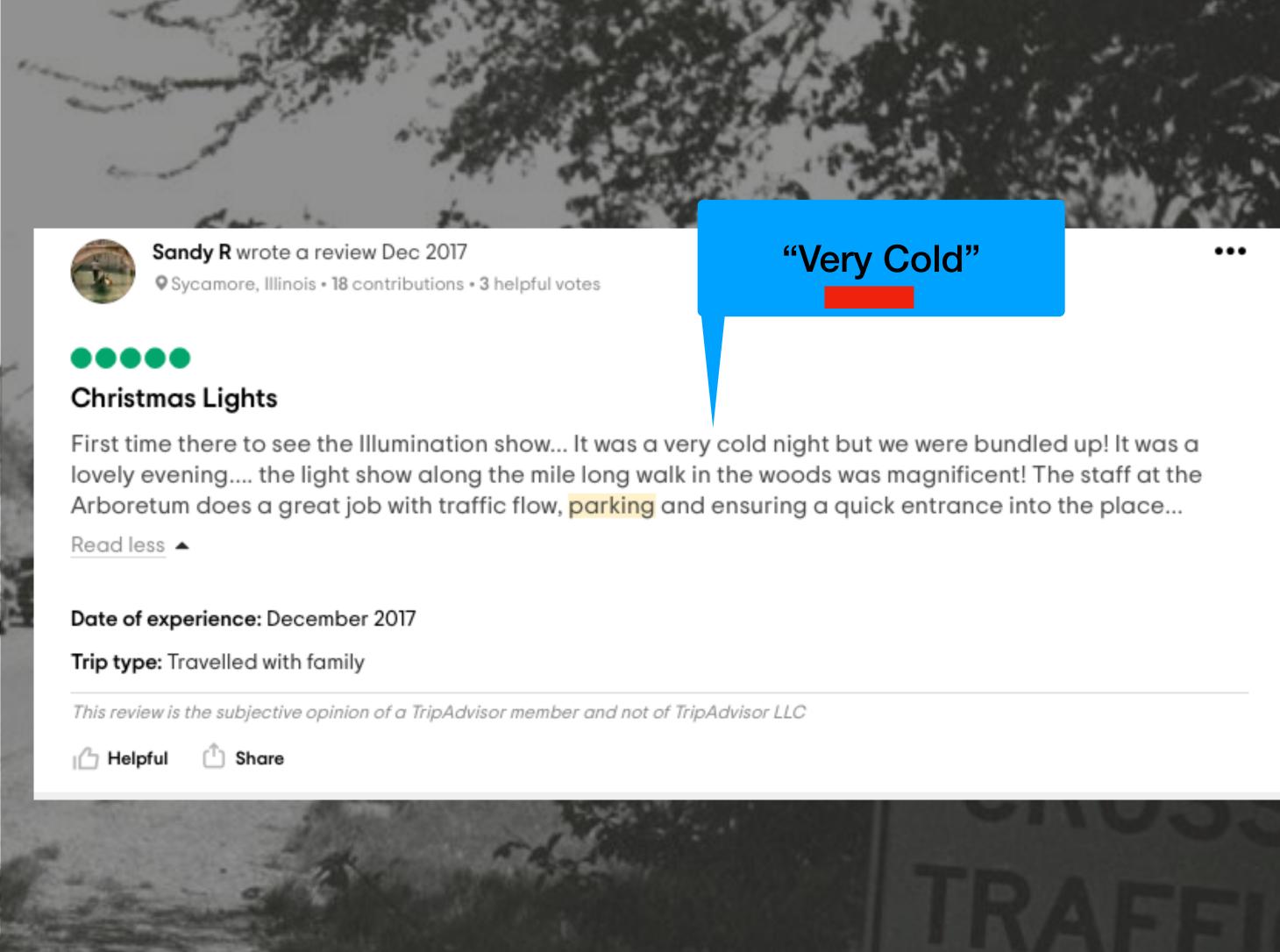
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?

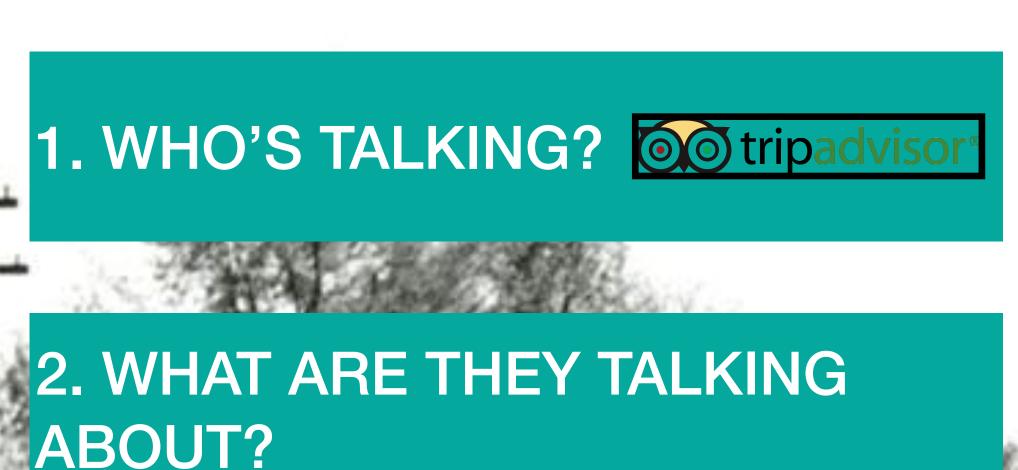






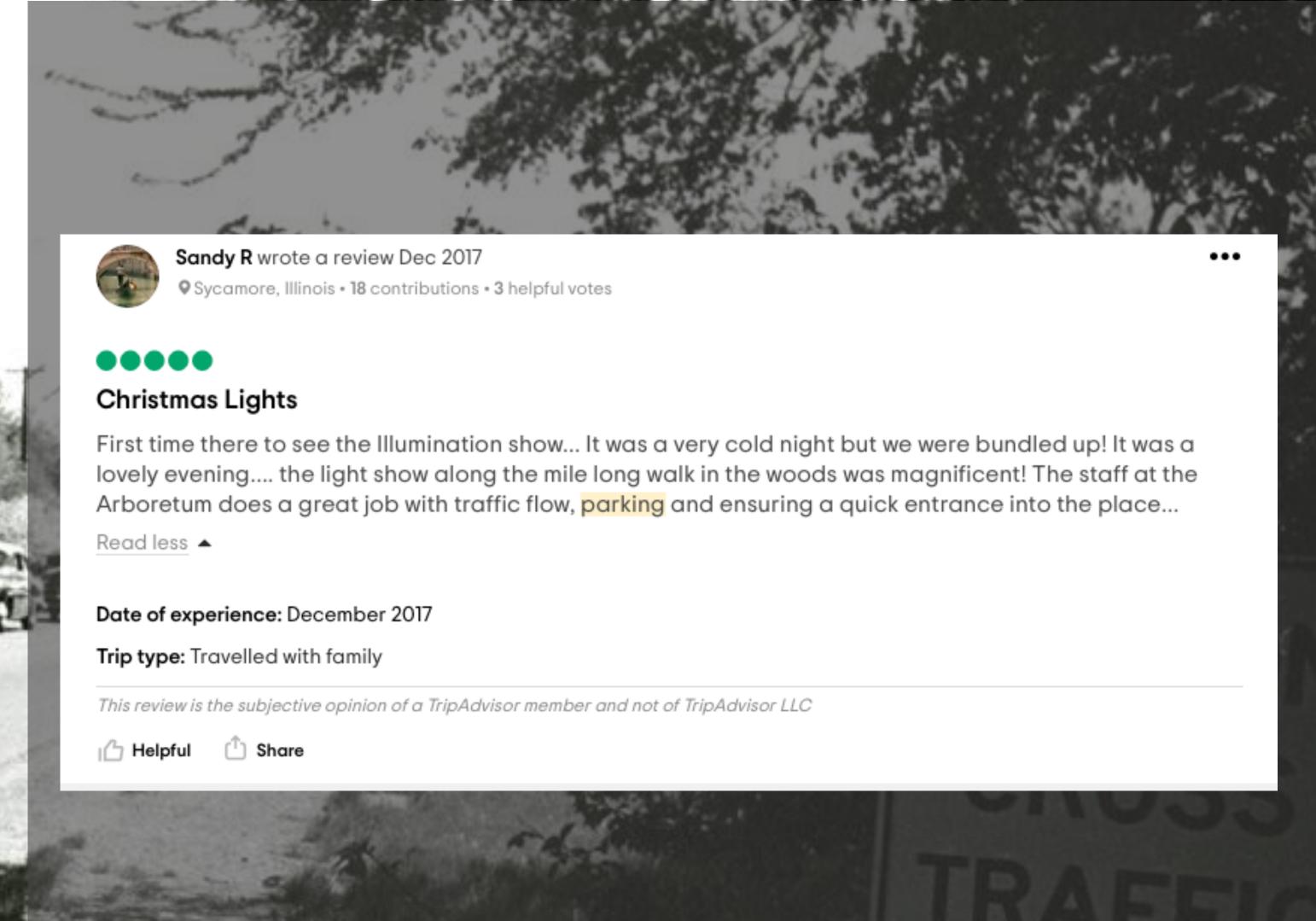


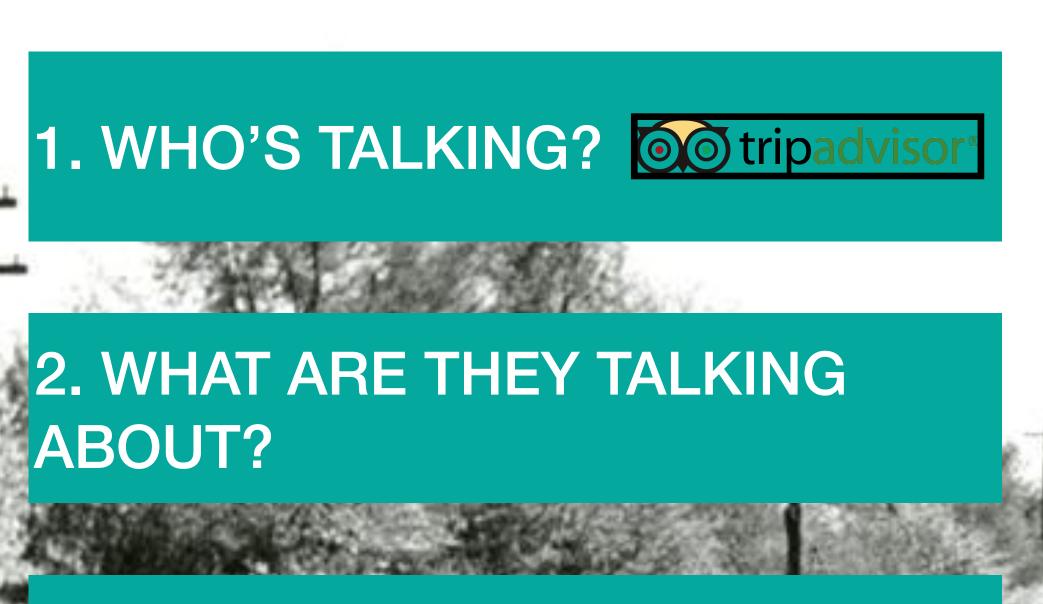




3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

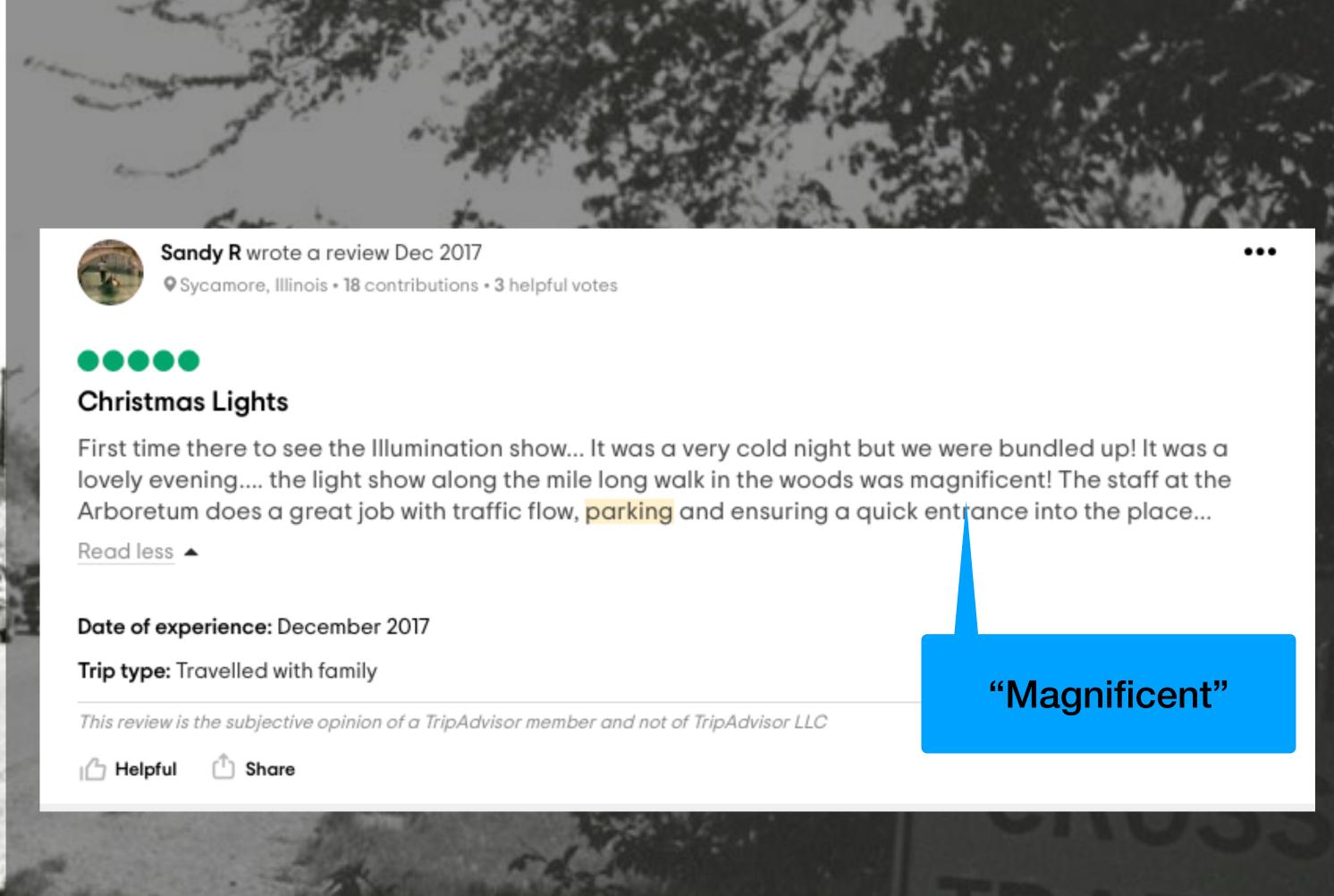
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?

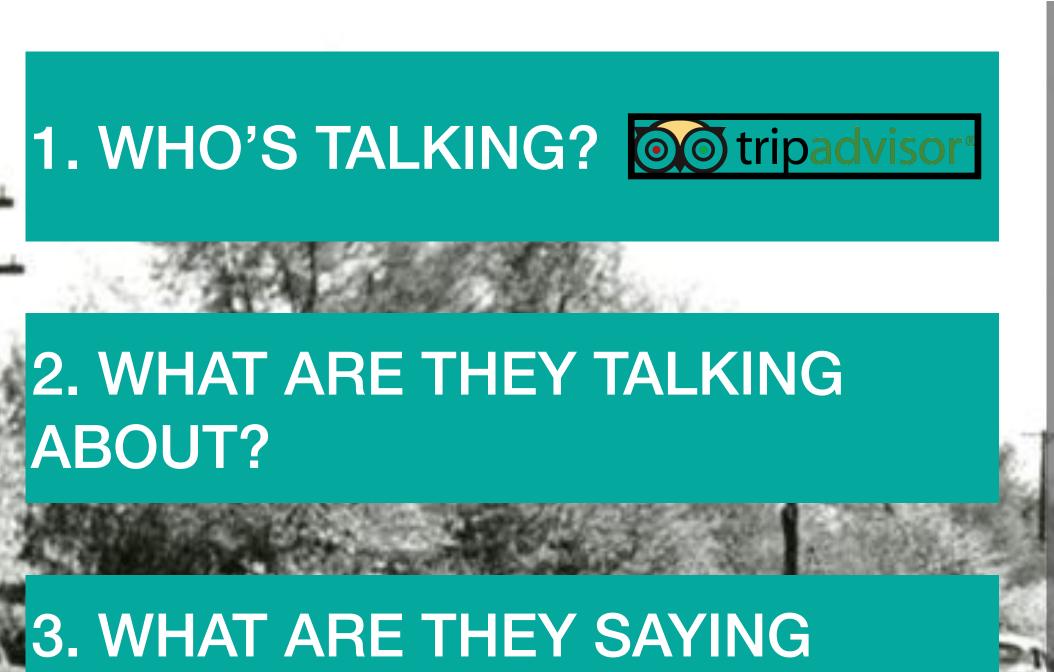




3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

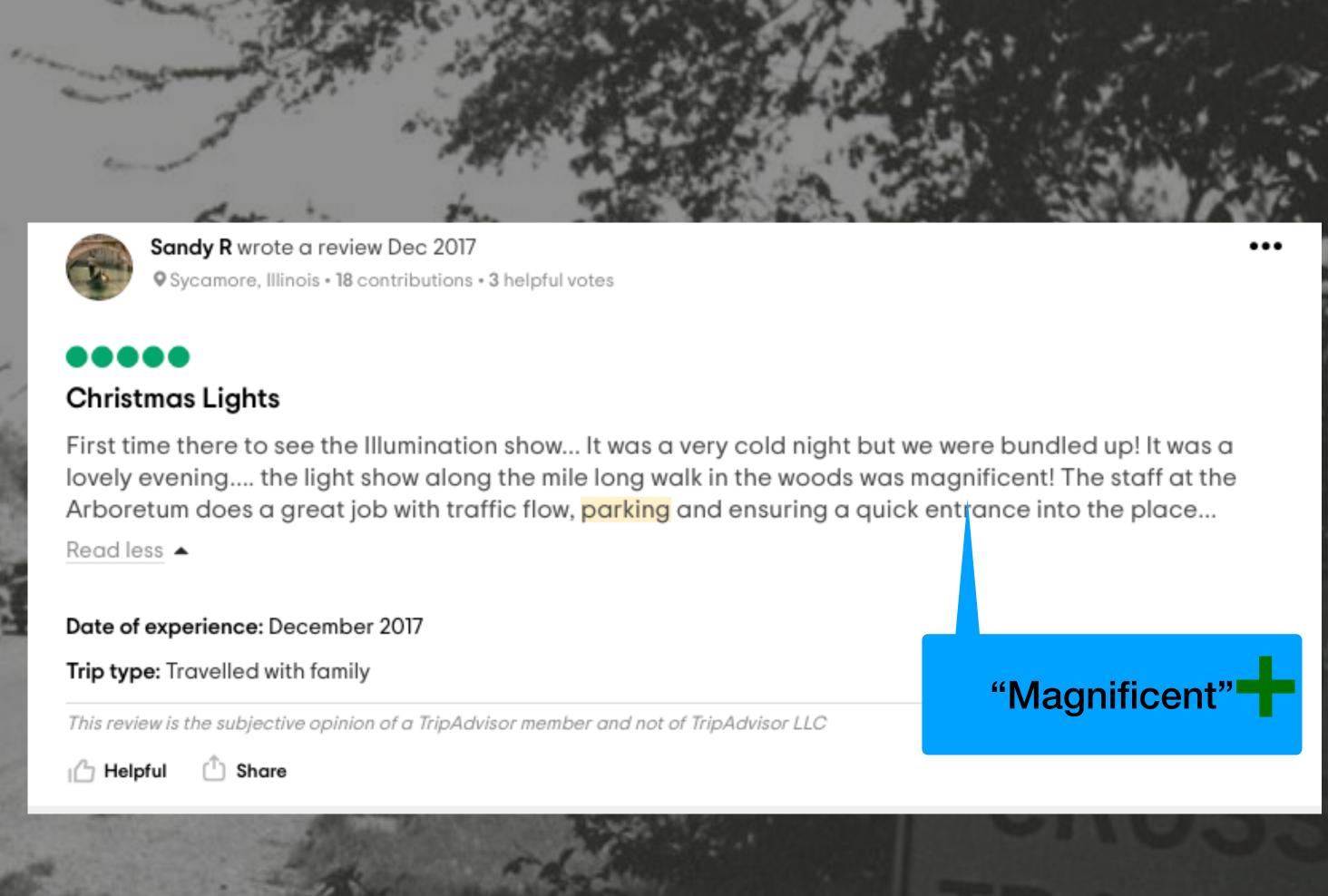
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?

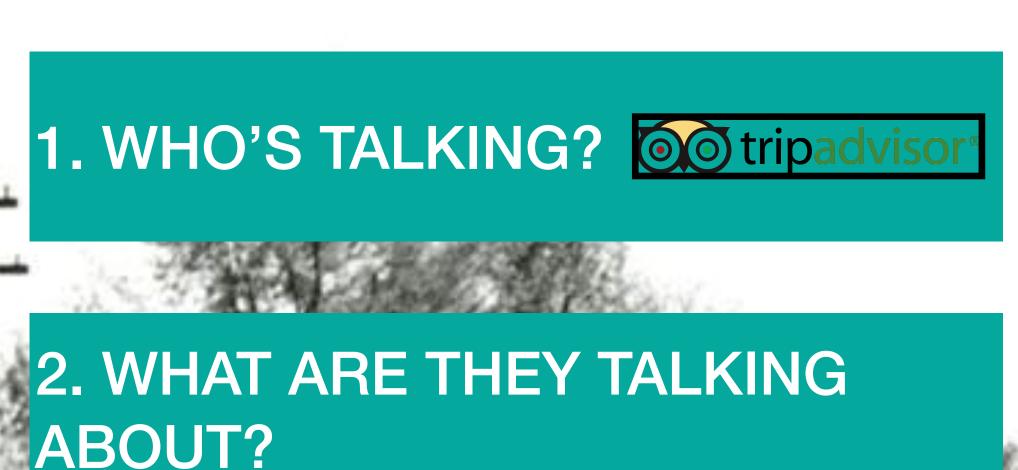




ABOUT THOSE TOPICS?

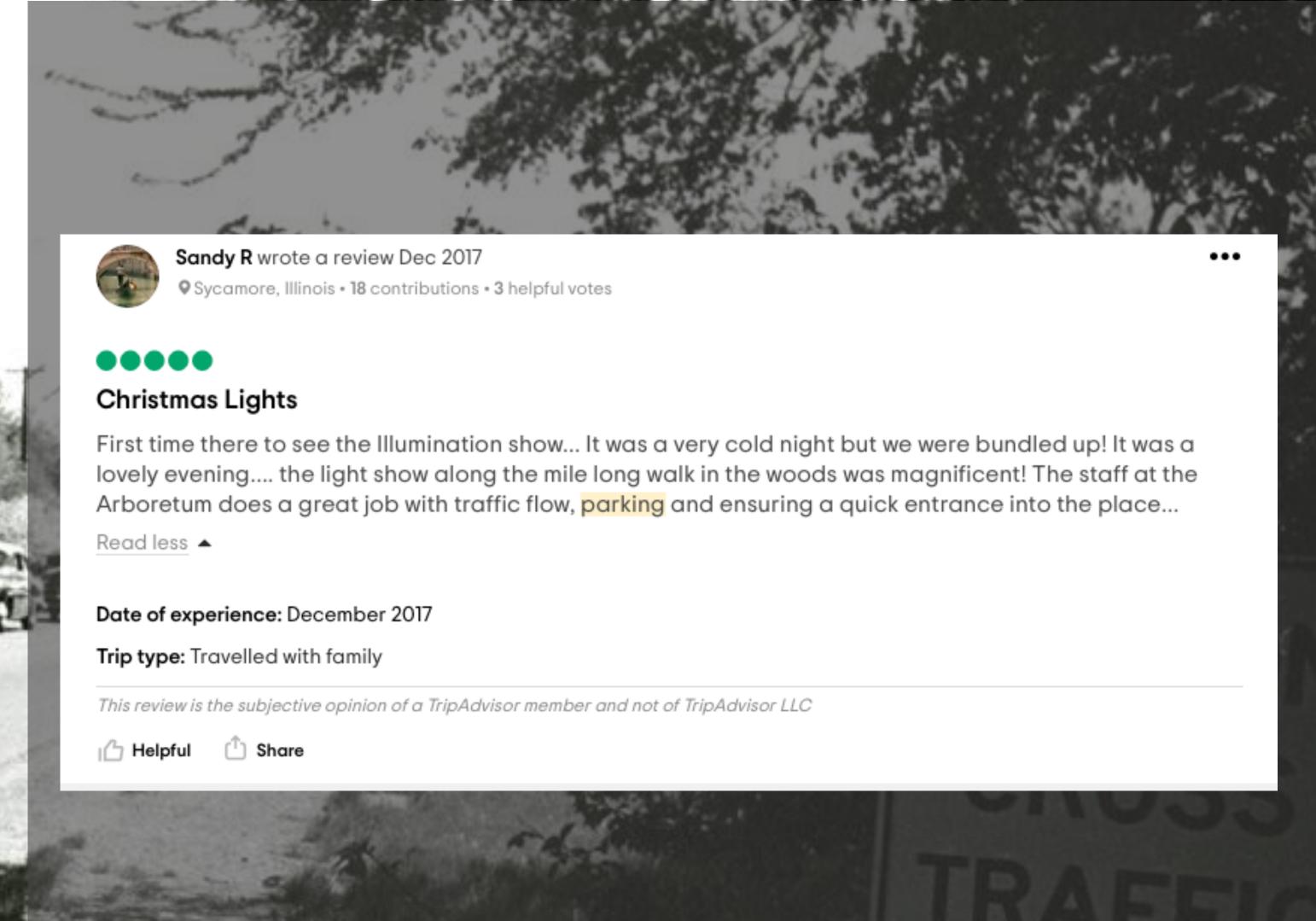
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?





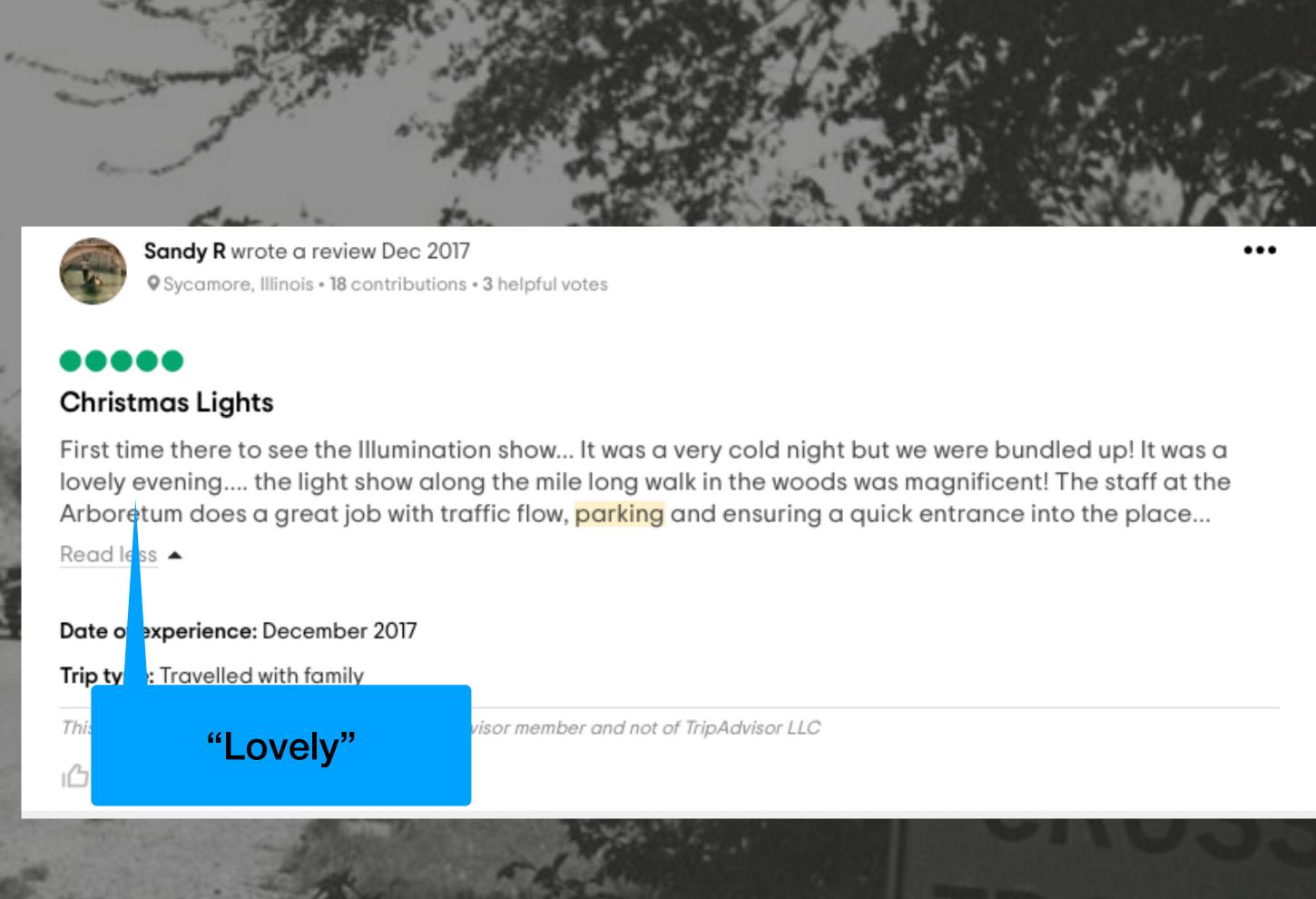
3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

4. HOW DO THEY FEEL ABOUT THOSE TOPICS?



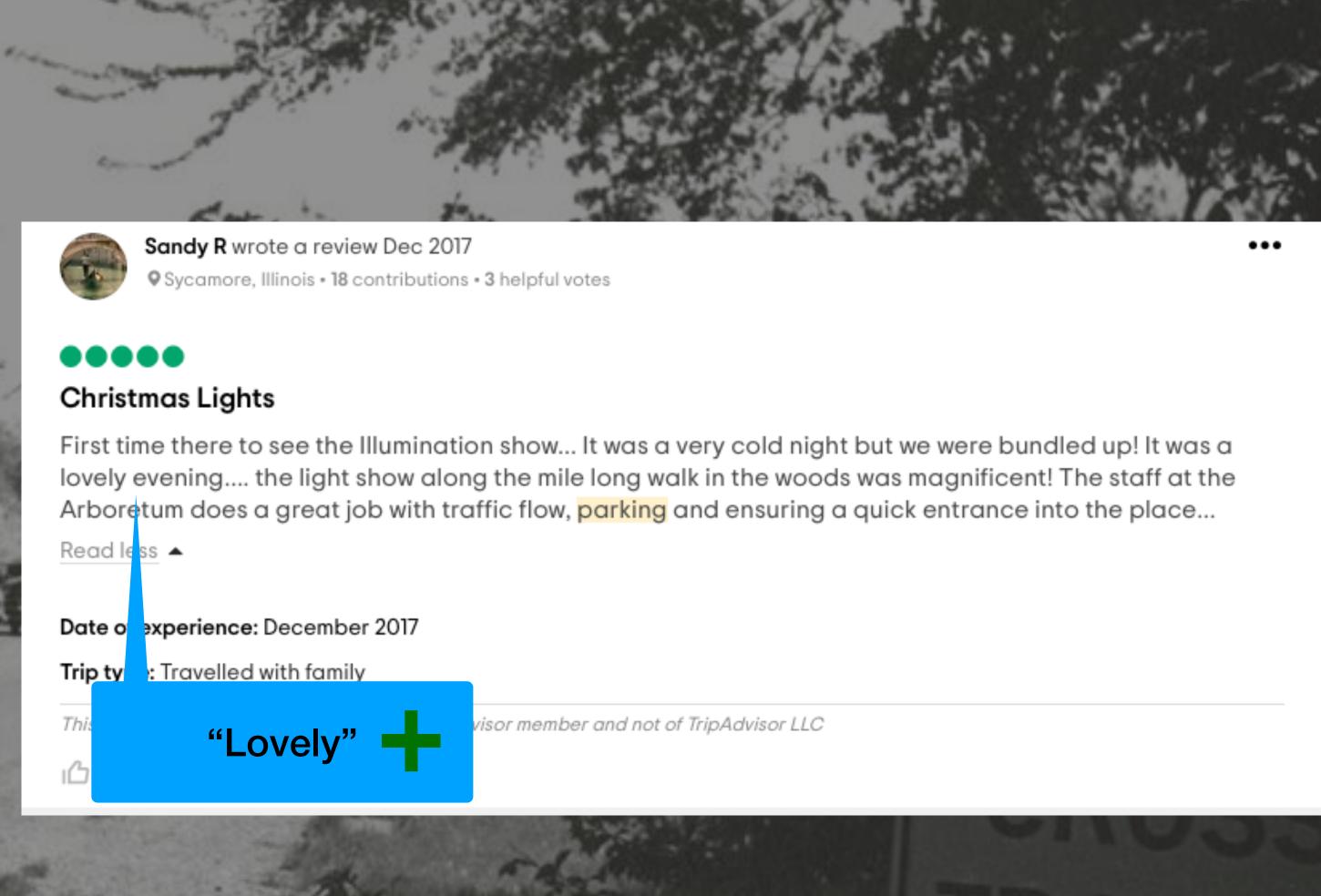


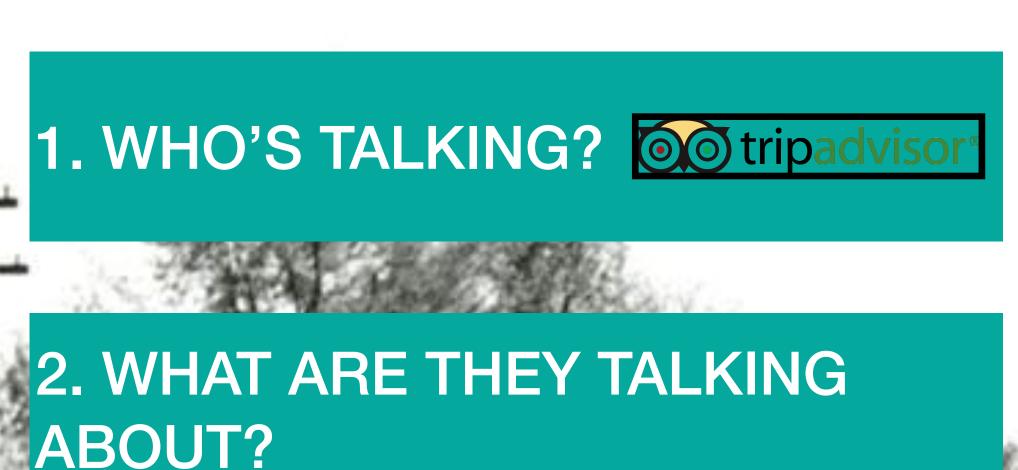
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?





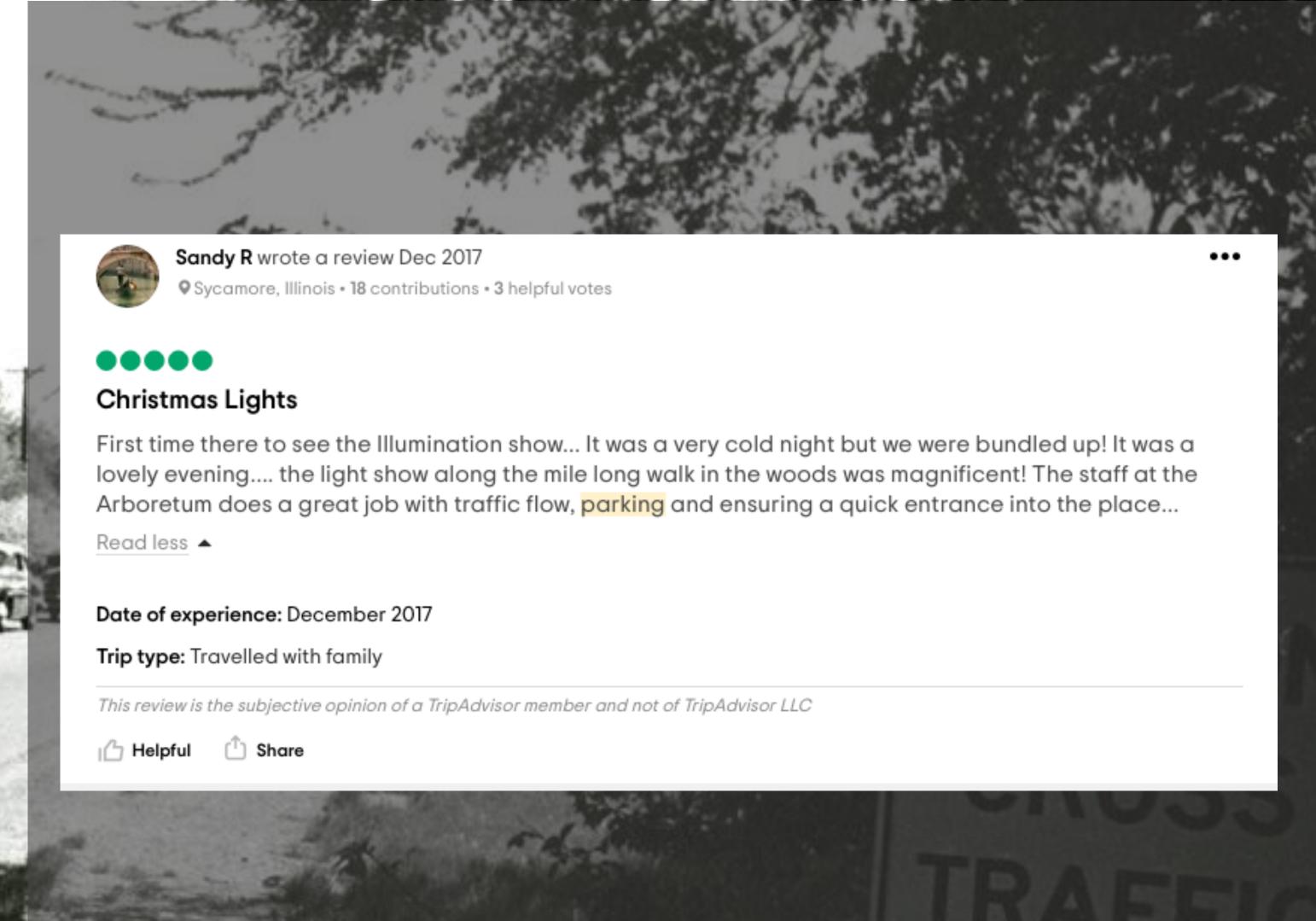
4. HOW DO THEY FEEL ABOUT THOSE TOPICS?

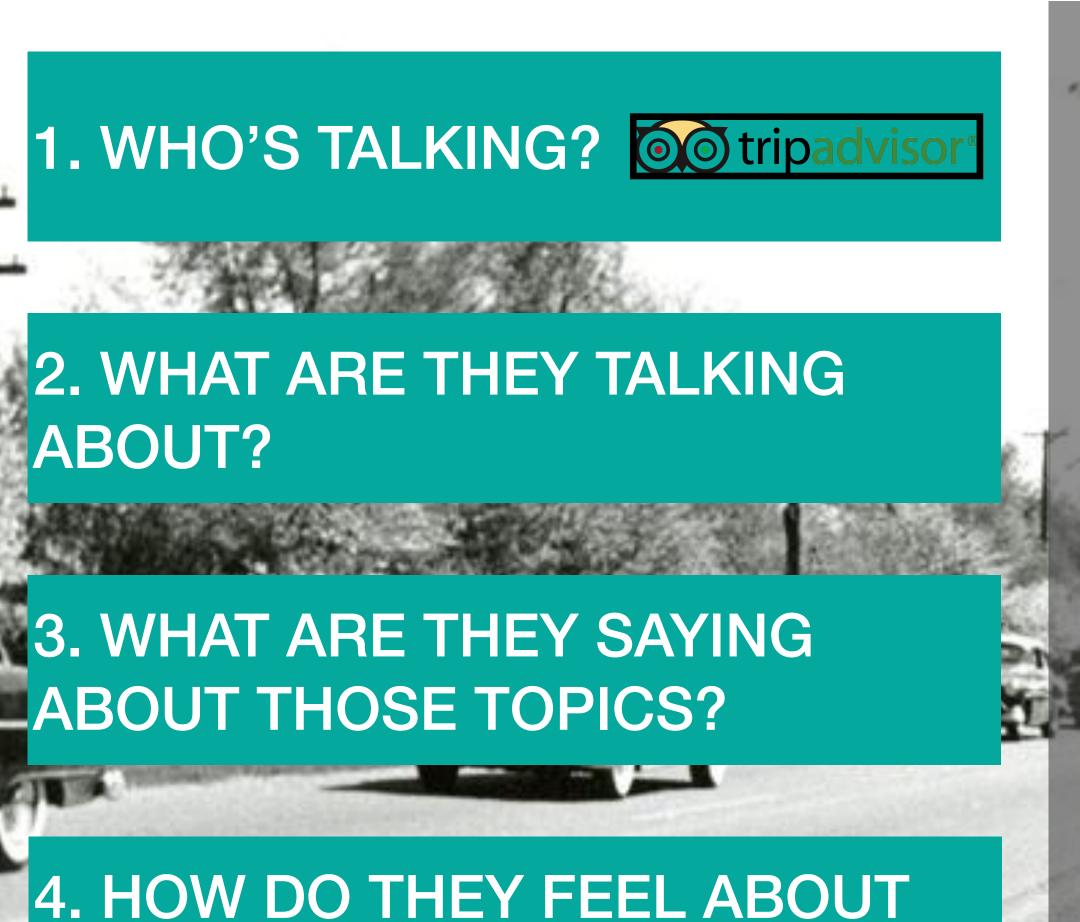




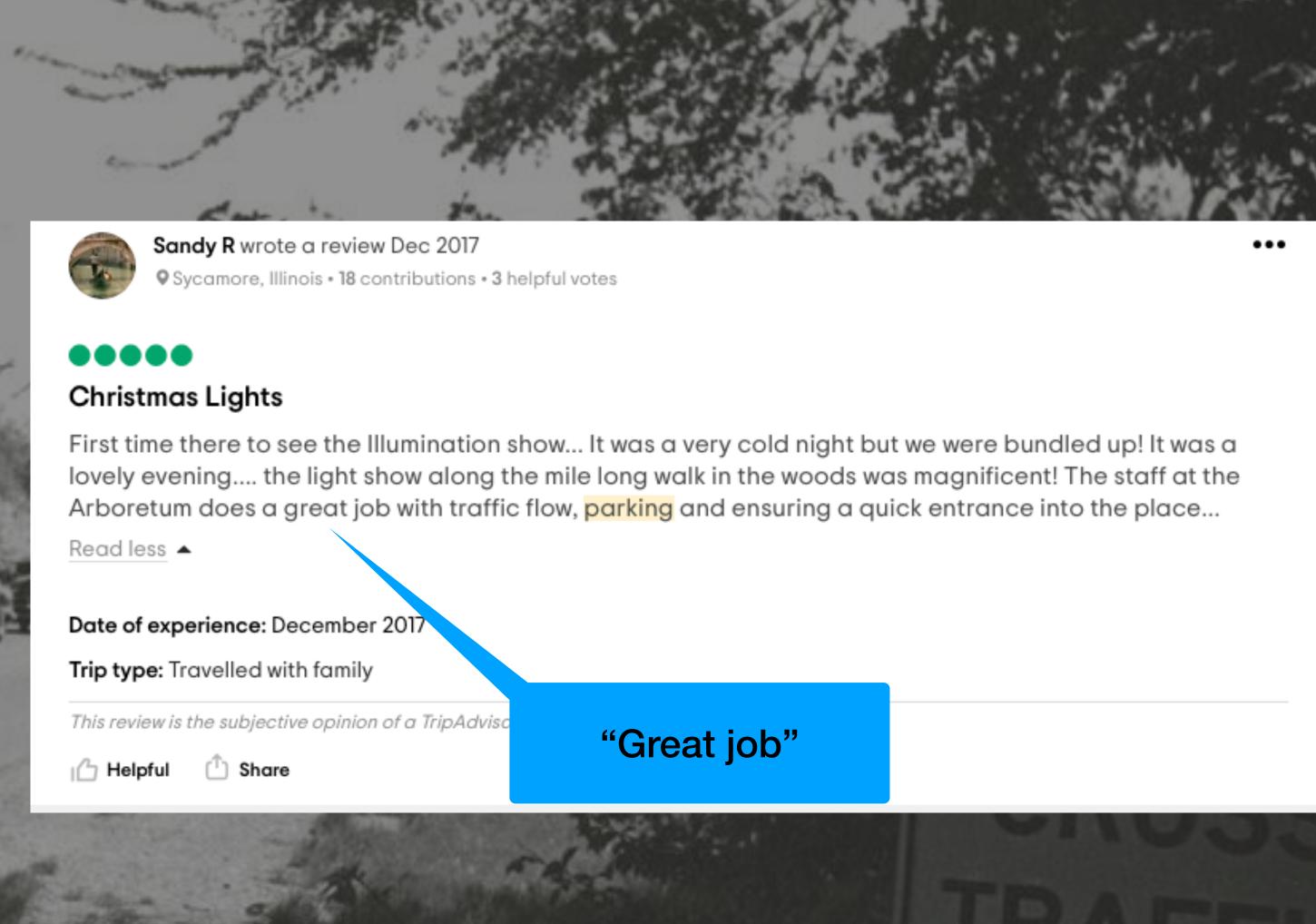
3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

4. HOW DO THEY FEEL ABOUT THOSE TOPICS?

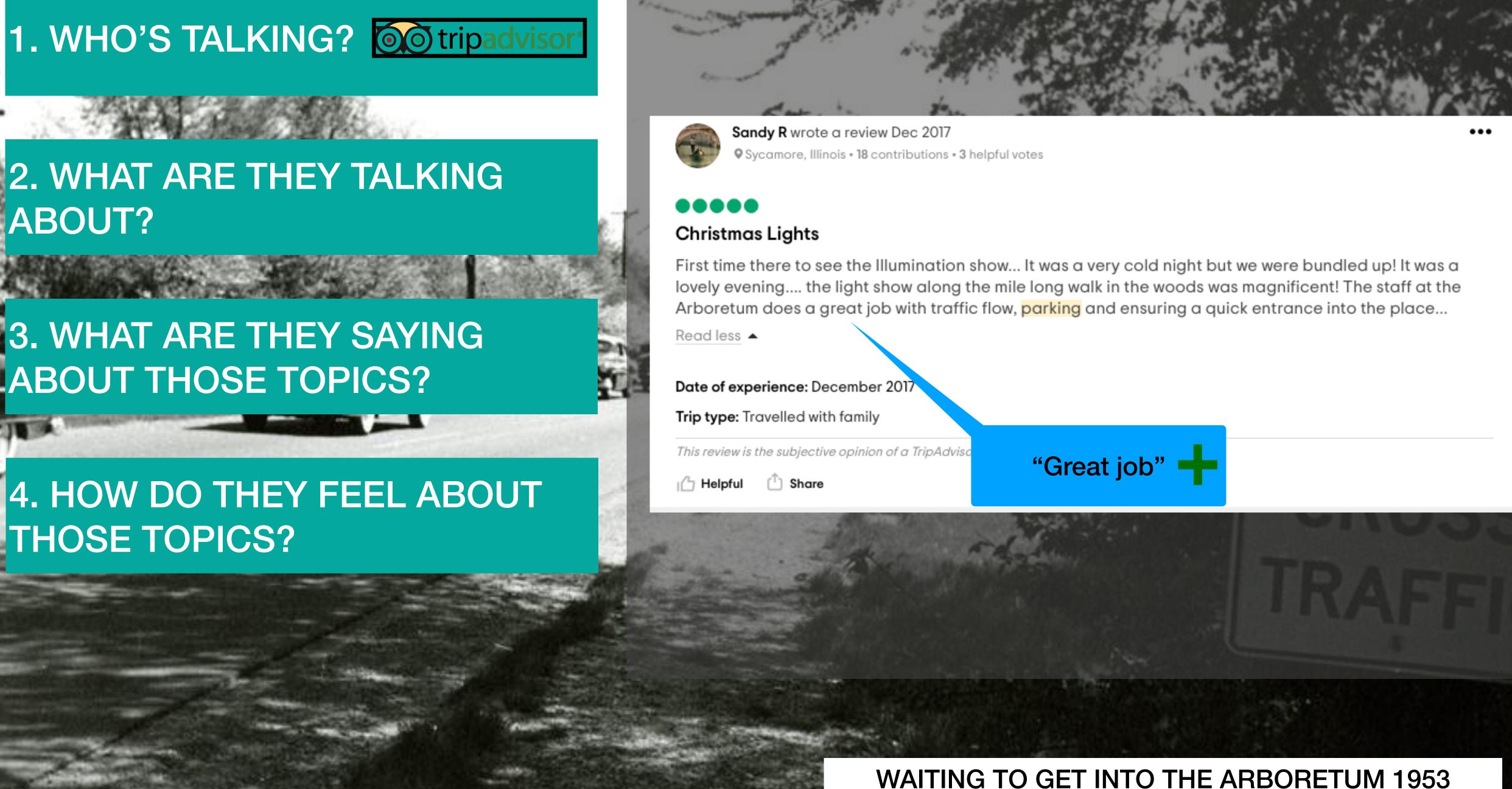


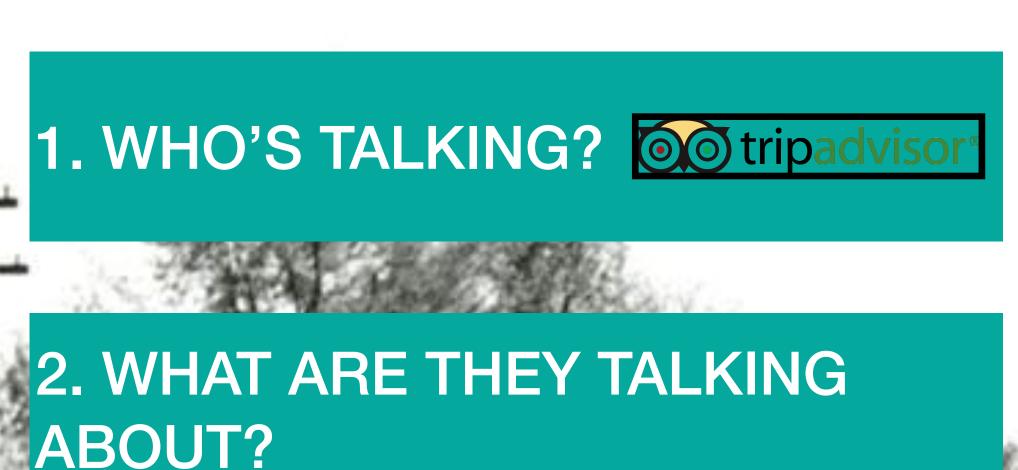


THOSE TOPICS?



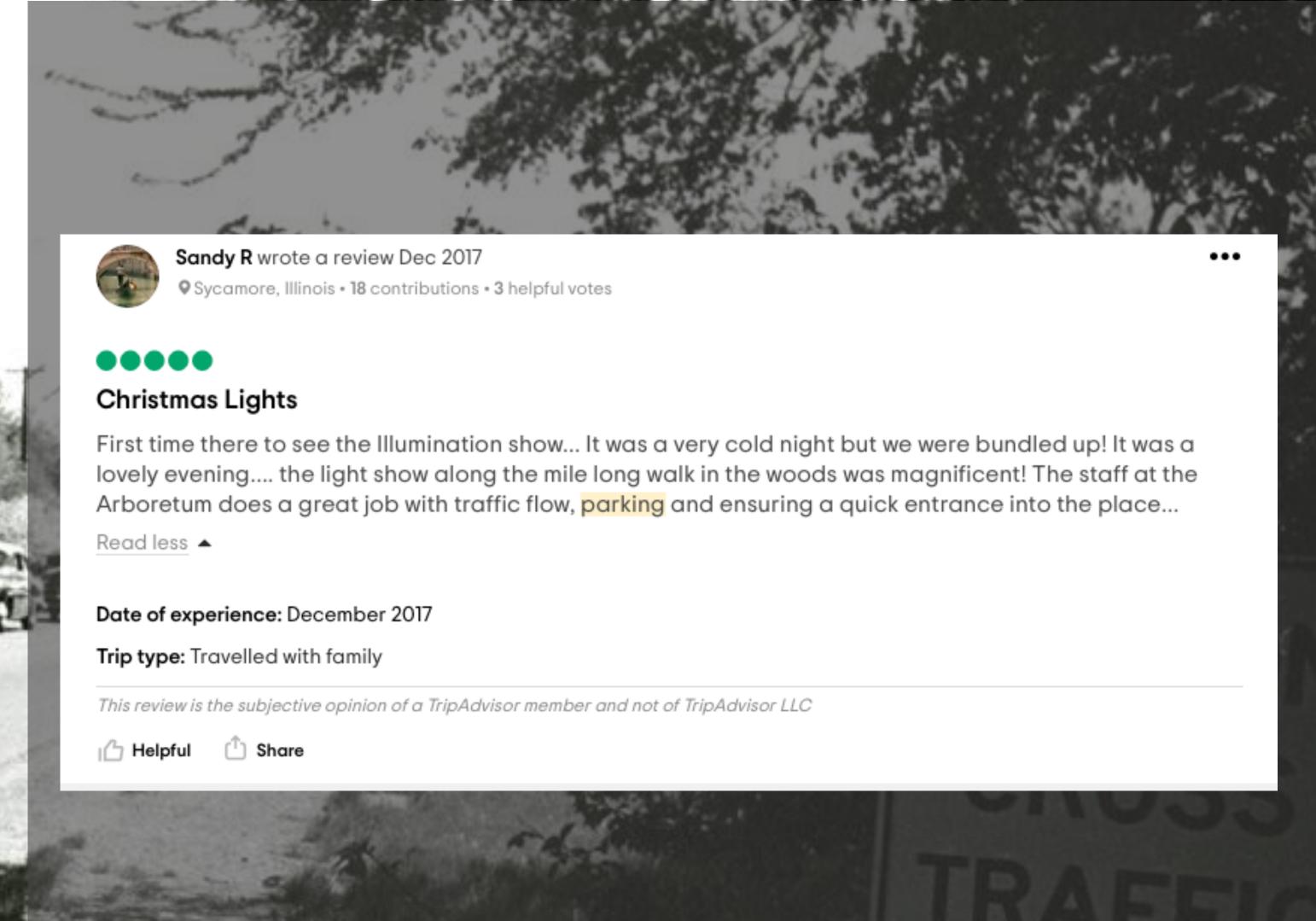


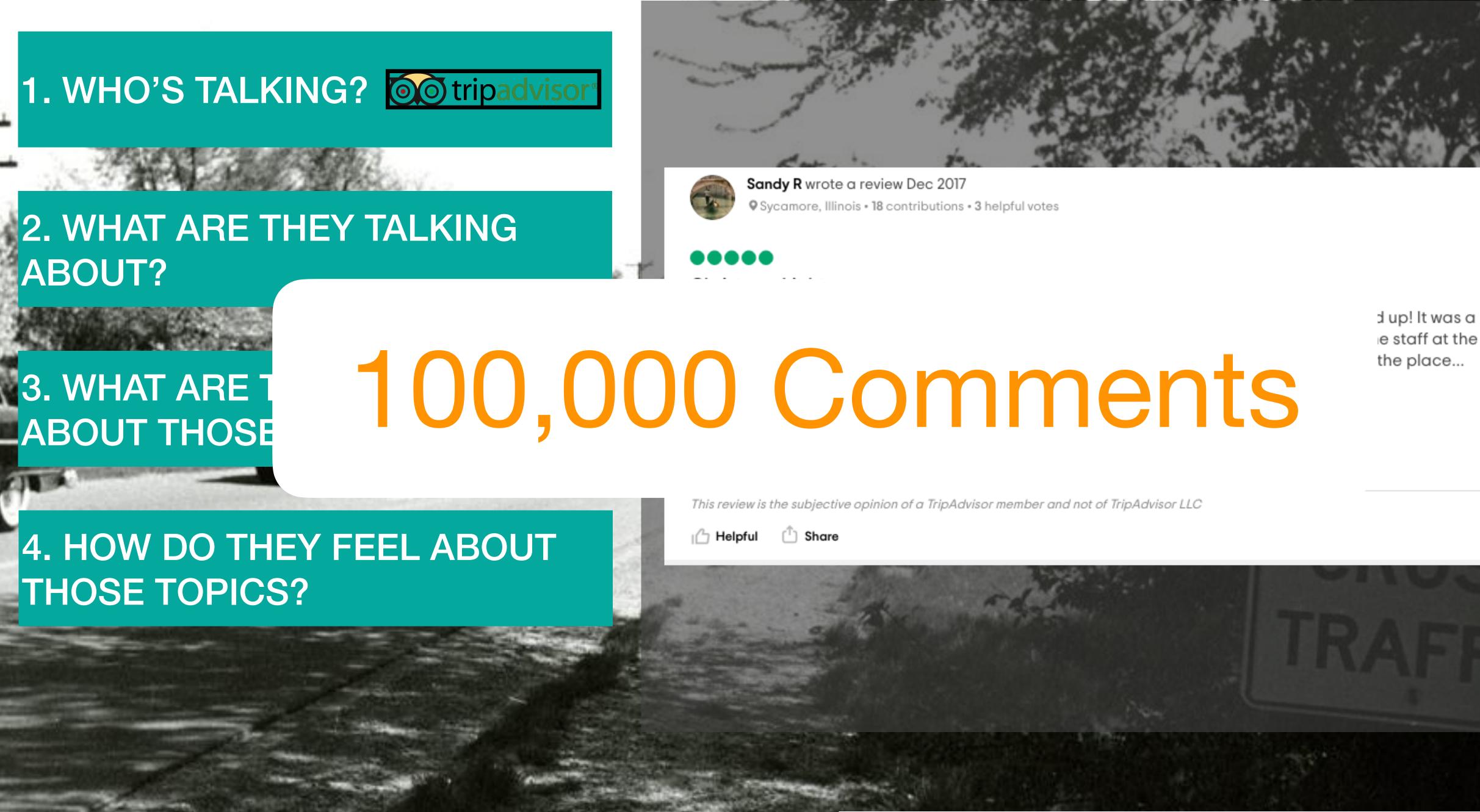




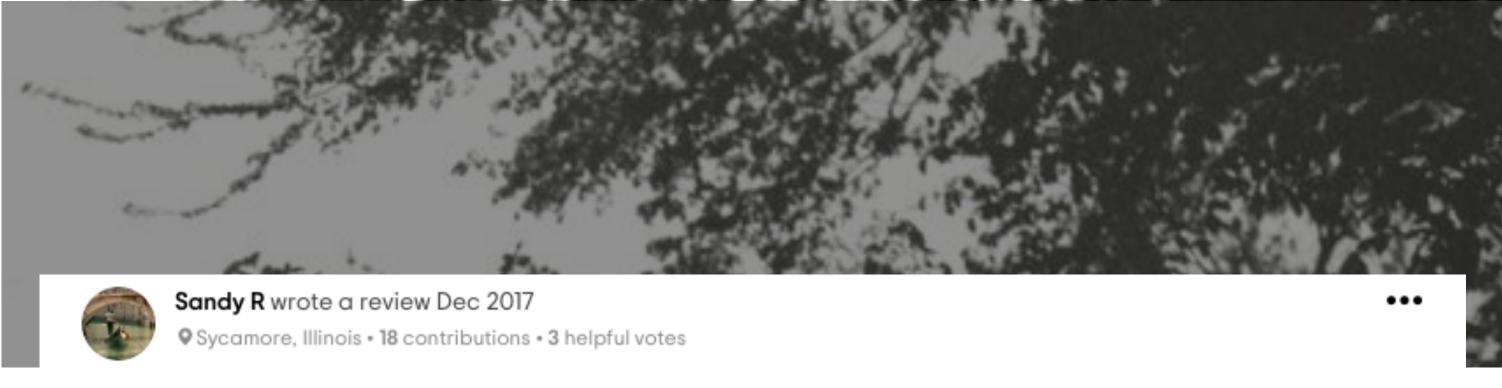
3. WHAT ARE THEY SAYING ABOUT THOSE TOPICS?

4. HOW DO THEY FEEL ABOUT THOSE TOPICS?









100,000 Comments





PREDICT MEMBER NEEDS

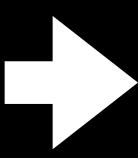




Forecasting trends based on opinions



Forecasting trends based on opinions



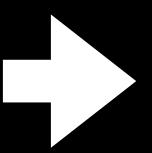
Product and service planning to meet member needs



Forecast demand by integrating customer feedback with business data



Forecast demand by integrating customer feedback with business data



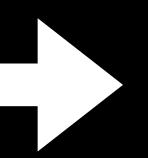
More accurate event planning



Risks



Risks



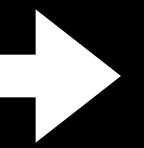
Prevent social media flaming



Real-time analysis of feedback from social media



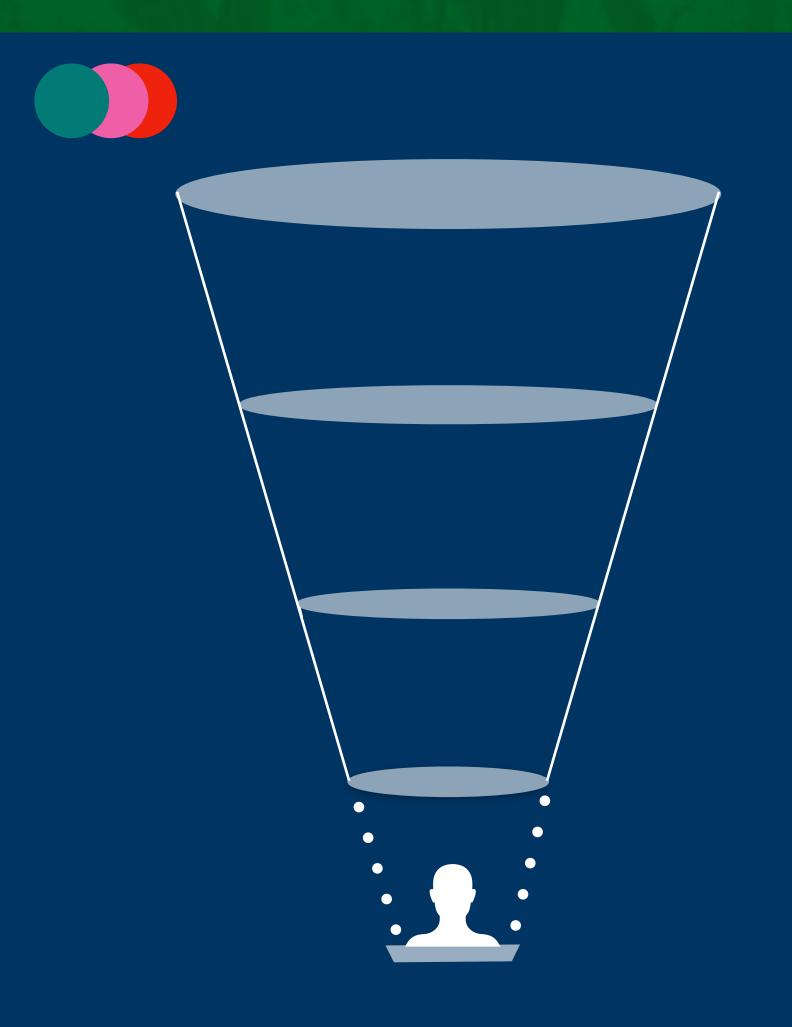
Real-time analysis of feedback from social media



More effective promotions

MEMBERSHIP FUNNEL





ACQUISITION

RETENTION

UPGRADE

CULTIVATE

MEMBERSHIP FUNNEL



MFMRFRSHIP FUNNFI



RETENTION

ACQUISITION

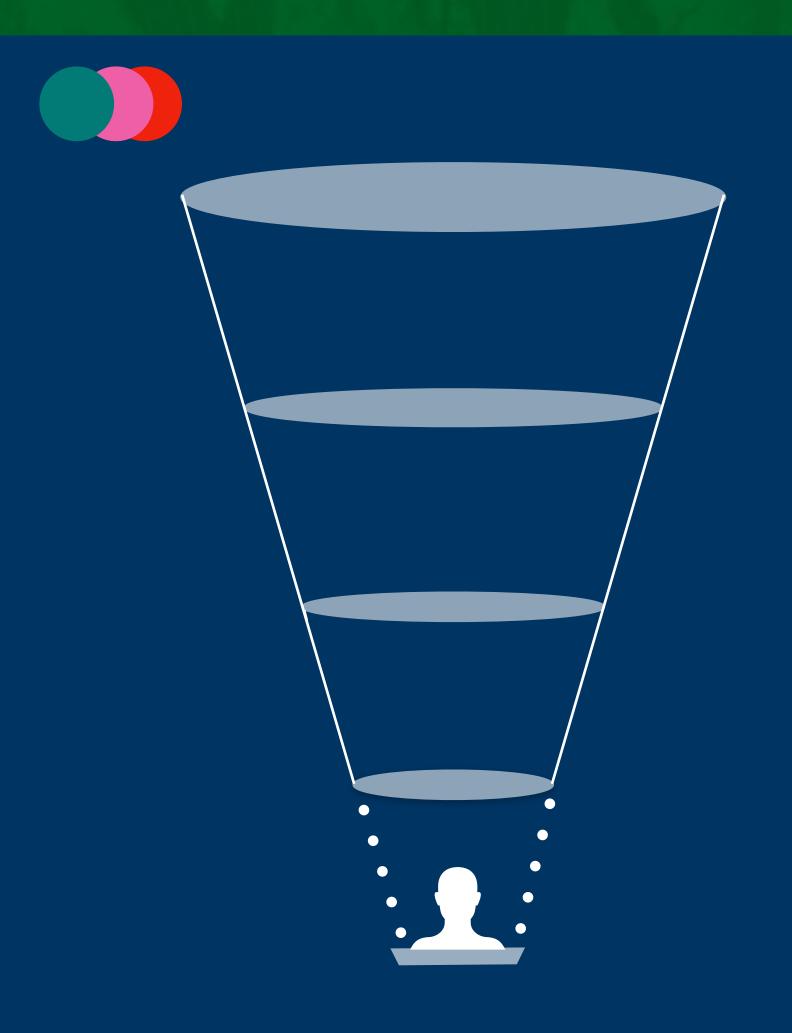


UPGRADE

CULTIVATE

RETENTION HIP FUNNEL





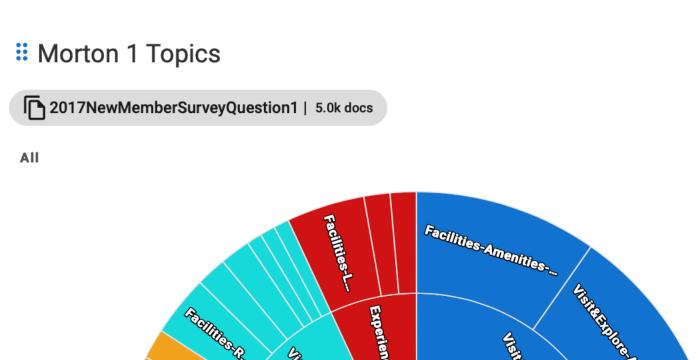
ACQUISITION

UPGRADE

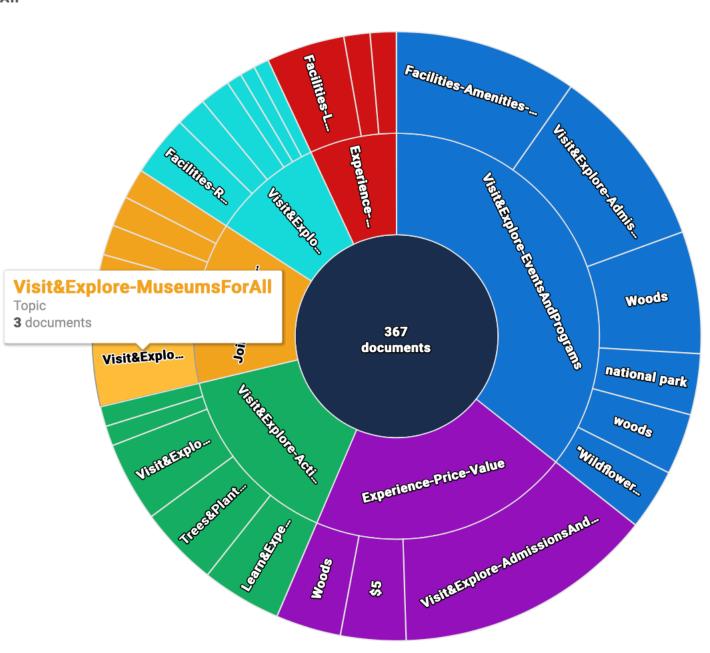
CULTIVATE

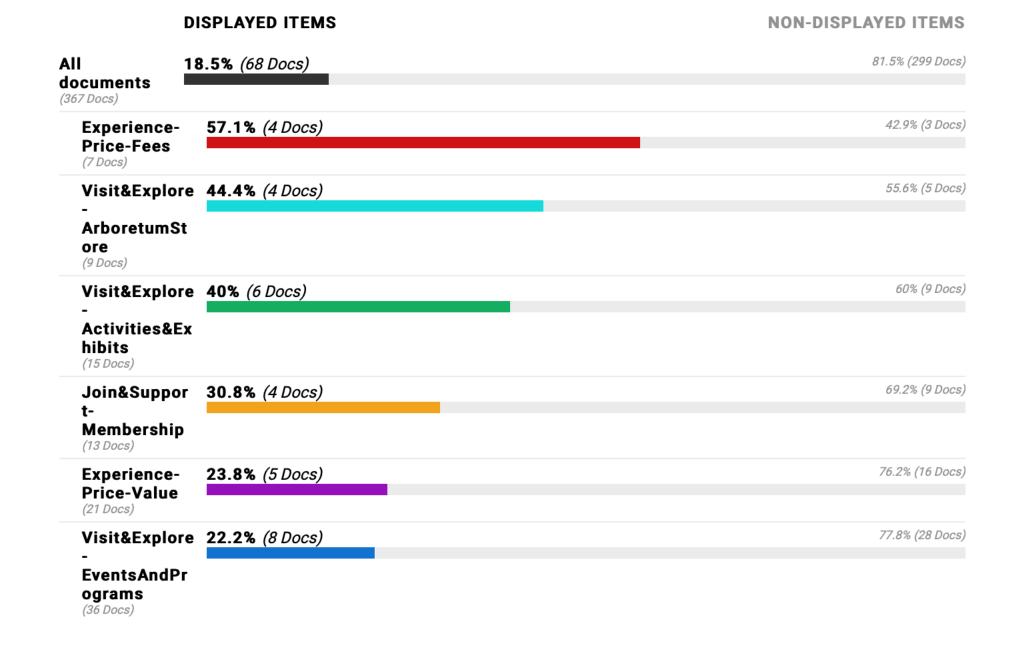




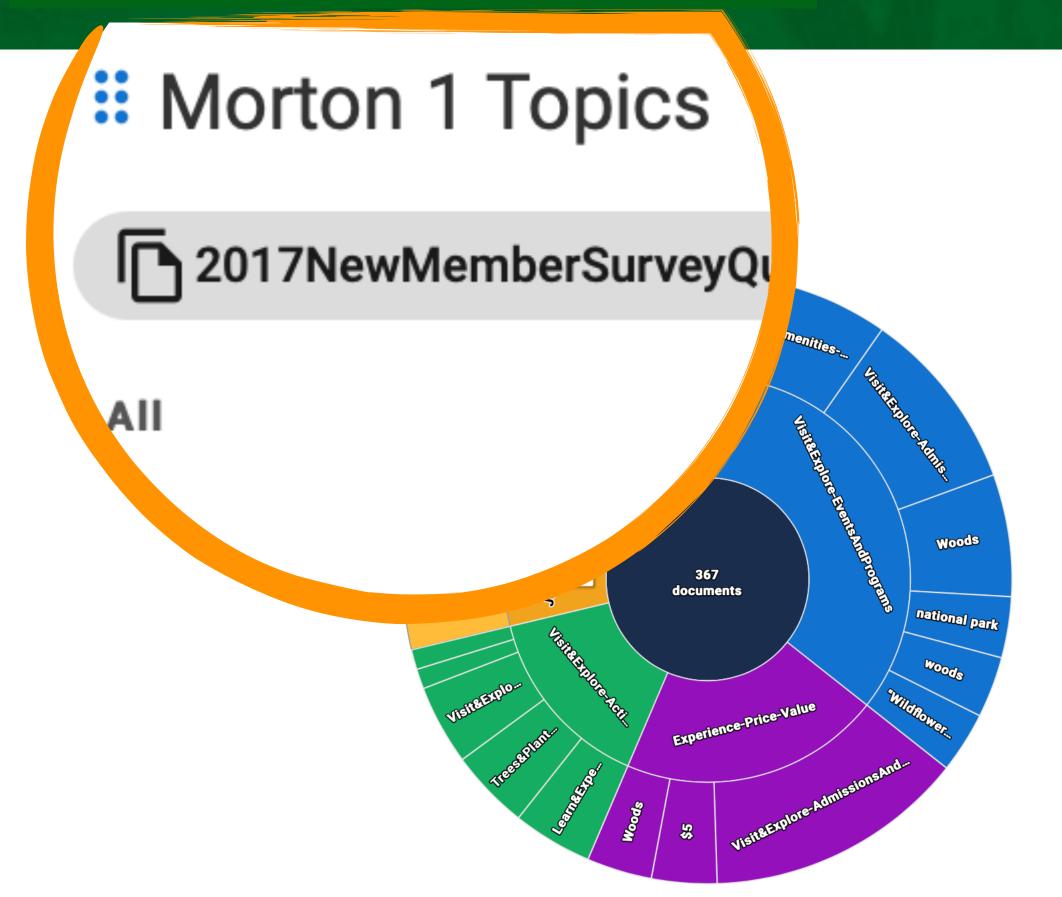




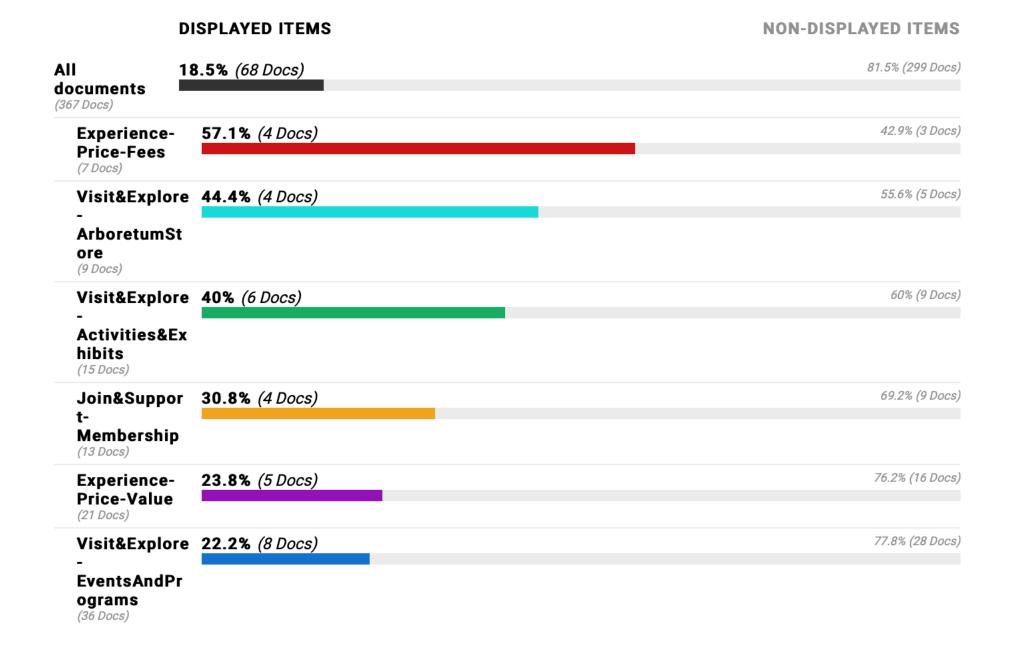






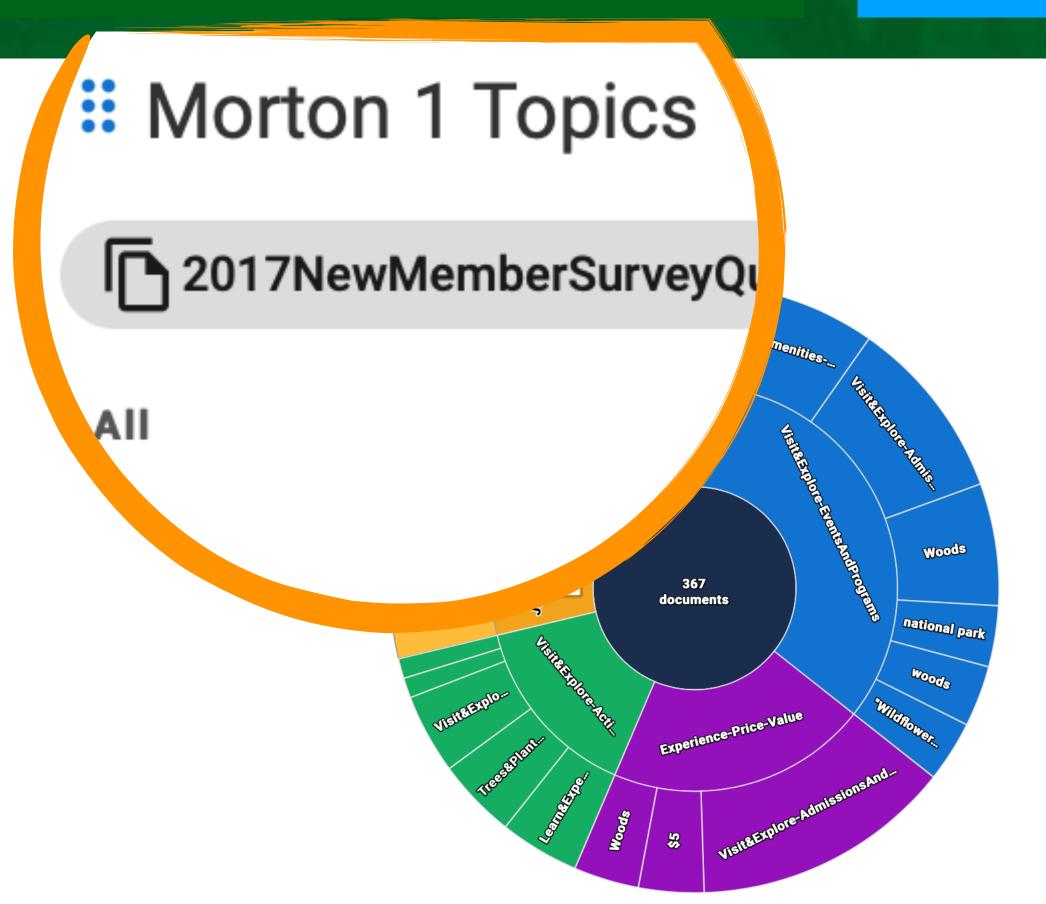




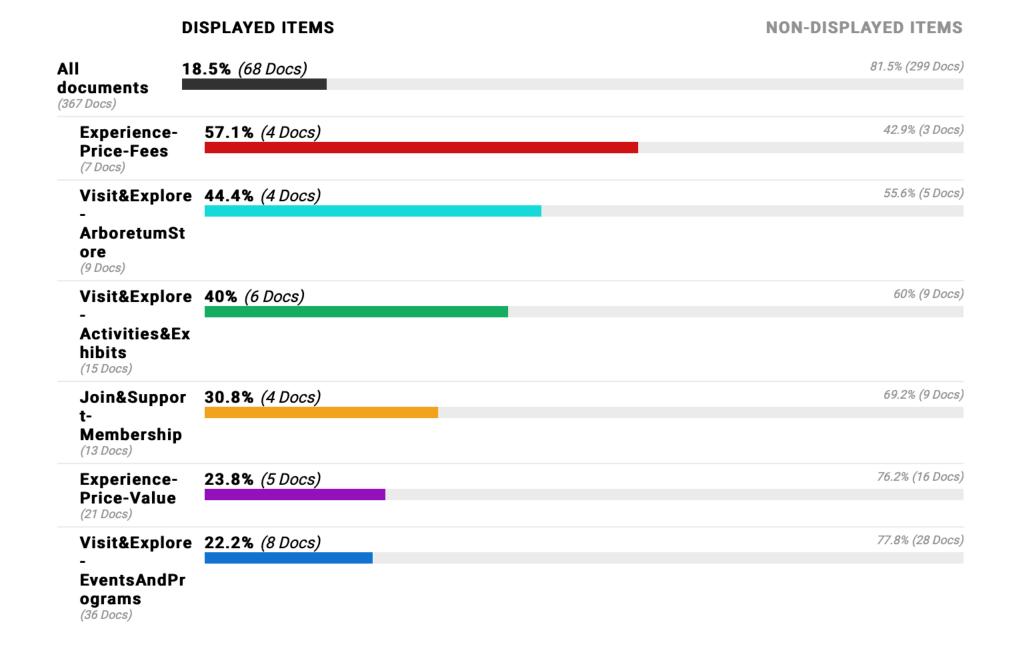


Morton 1





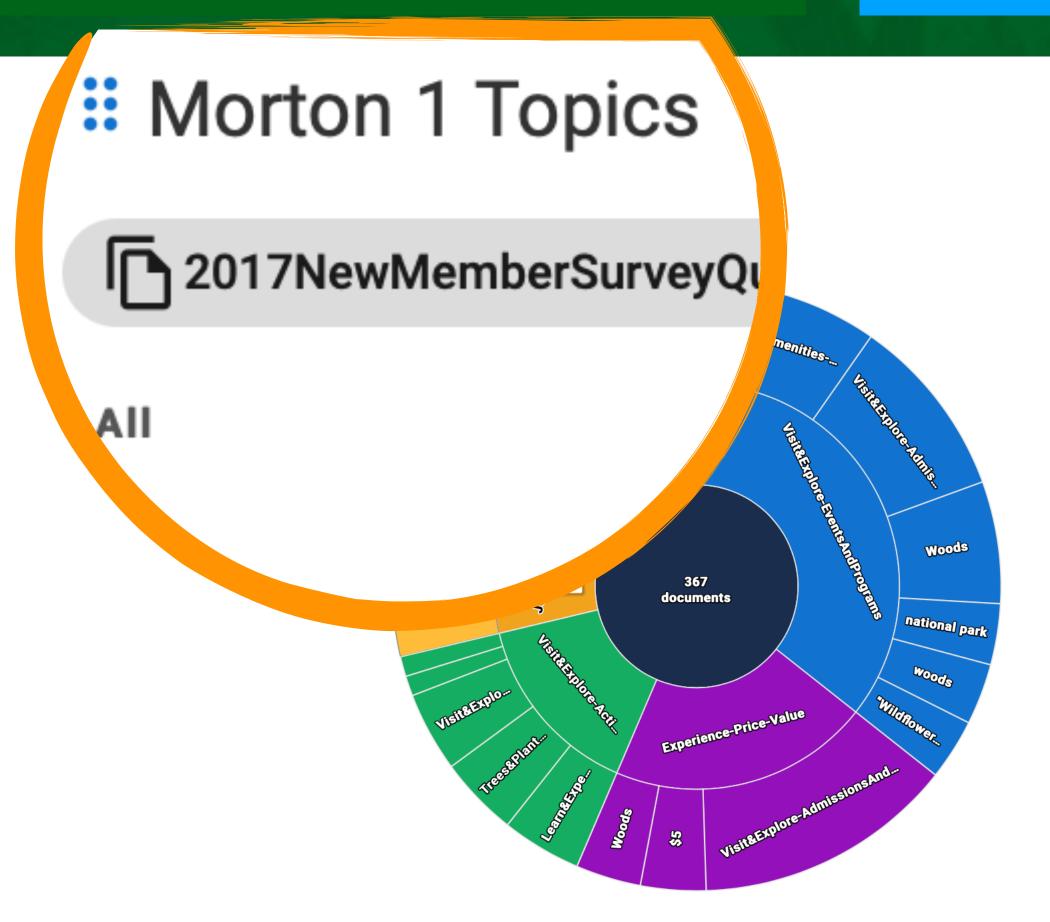




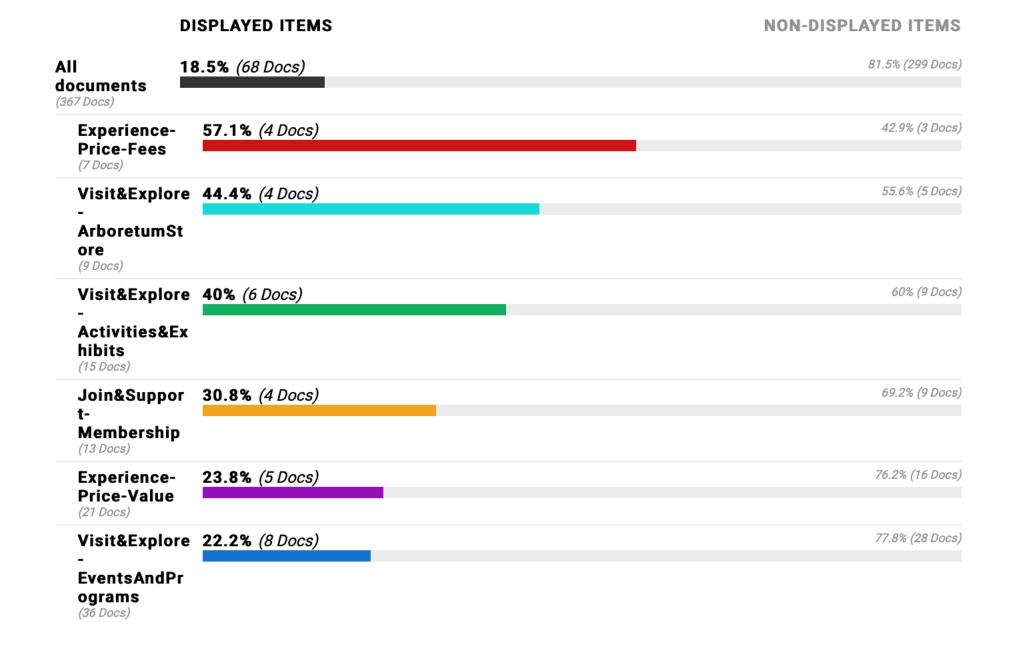
Morton 1

Topics





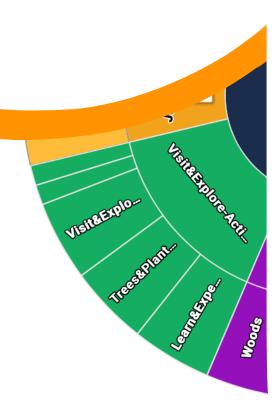




Morton 1 Topic



All



All documents

18.5% (68 Docs)



(367 Docs)

Experi	ence-
Price-	Fees

57.1% (4 Docs

→ ◎ ≈

(7 Docs)

(9 Docs)

NON-DISPLAYED ITEMS

Visit&Explore 44.4% (4 Docs

55.6% (5 Docs)

ArboretumSt ore

60% (9 Docs)

69.2% (9 Docs)

76.2% (16 Docs)

77.8% (28 Docs)

Visit&Explore 40% (6 Docs)

Activities&Ex hibits

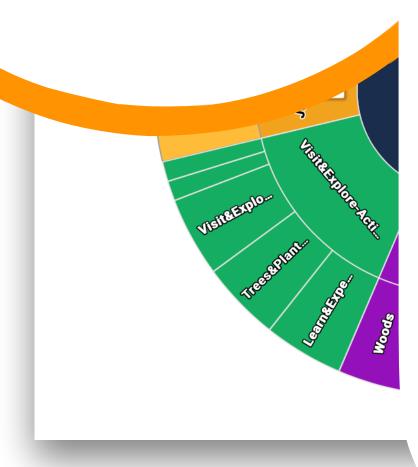
(15 Docs)

Morton 1 Topic



2017NewMemberSur

All



All documents

18.5% (68 Docs)



(367 Docs)

Ex	per	ier	nc	е-
Pri	ce-	·Fe	es	3

(7 Docs)

57.1% (4 Docs

→ ⊚ ≈ :

NON-DISPLAYED ITEMS

Visit&Explore 44.4% (4 Docs

ArboretumSt ore

(9 Docs)

55.6% (5 Docs)

60% (9 Docs)

69.2% (9 Docs)

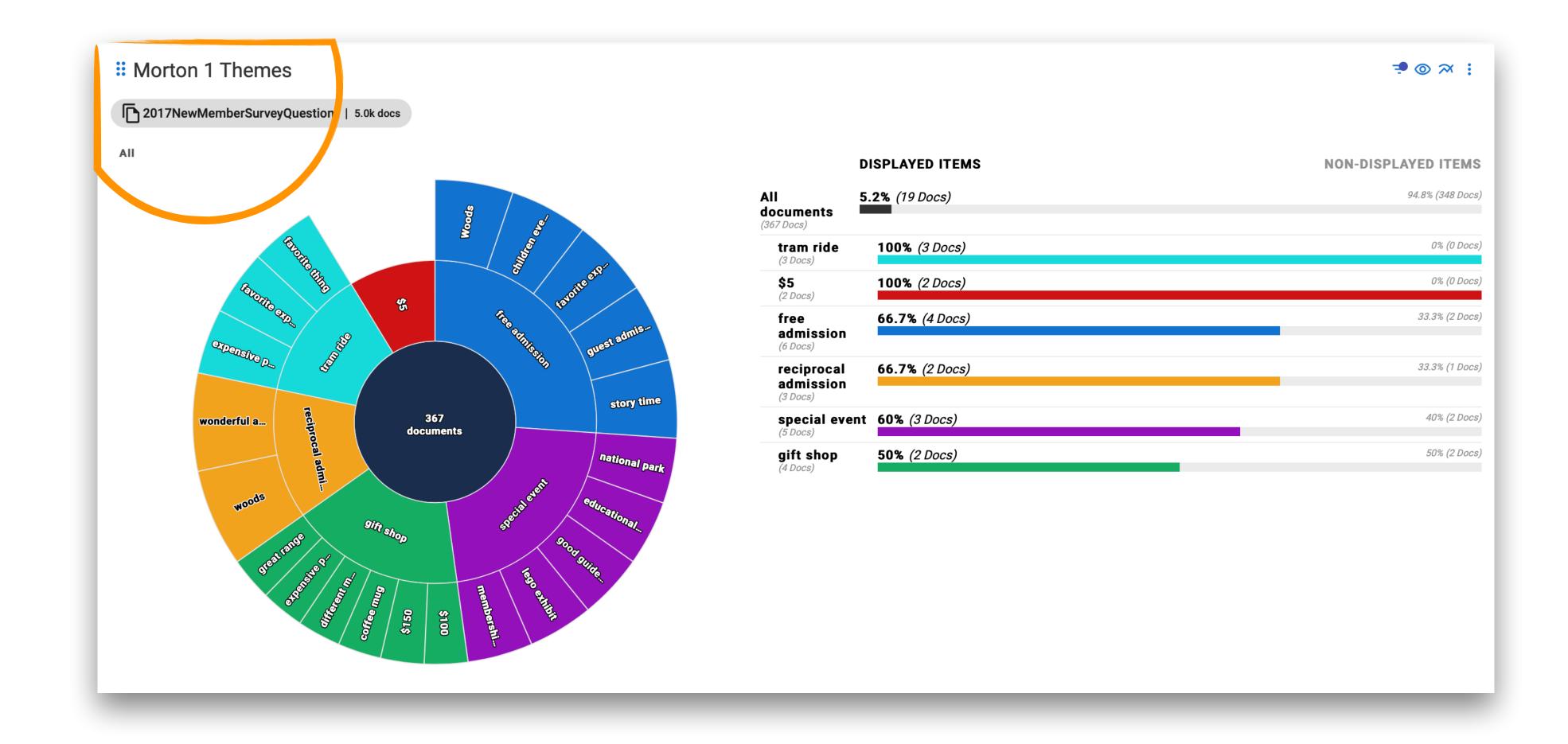
76.2% (16 Docs)

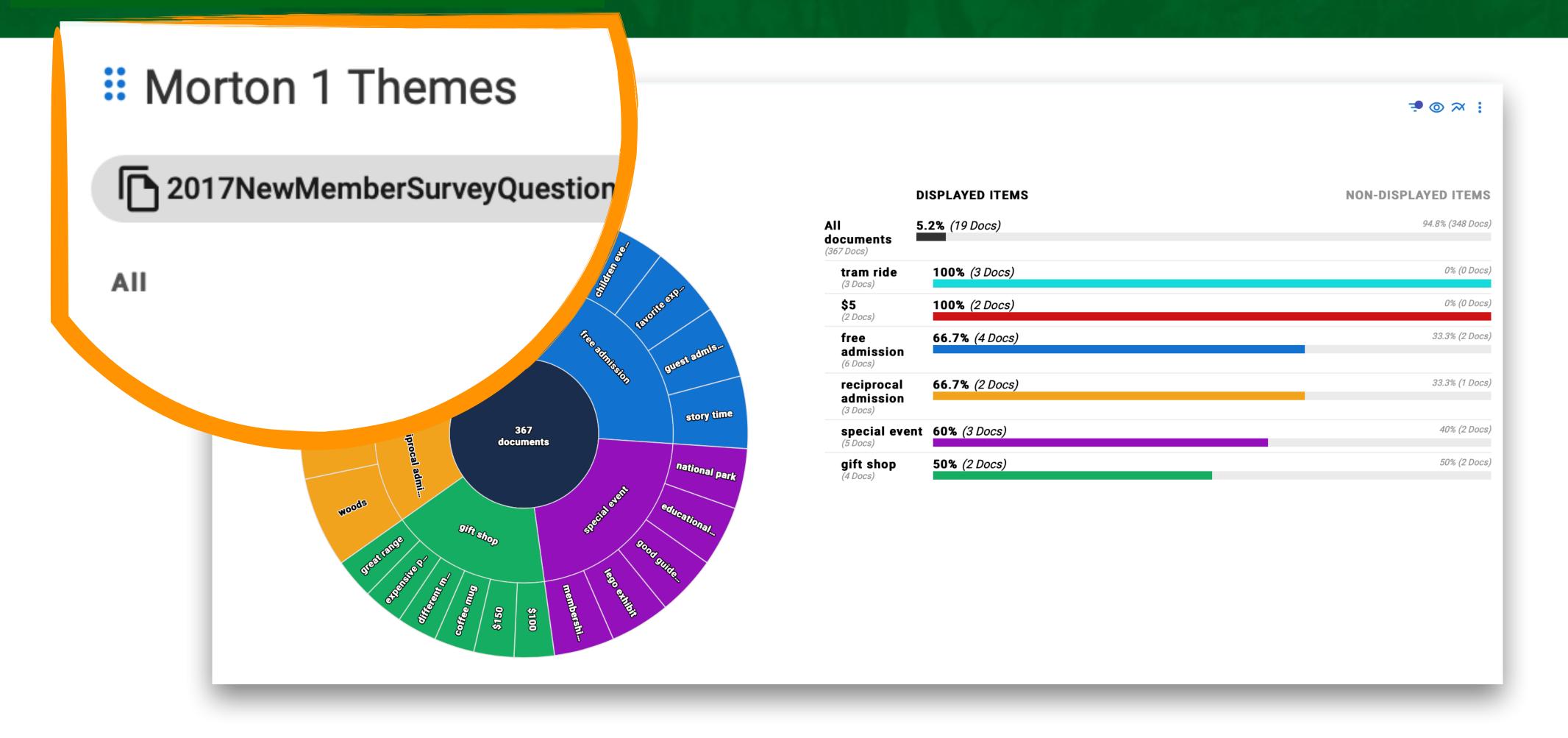
Visit&Explore 40% (6 Docs)

77.8% (28 Docs)

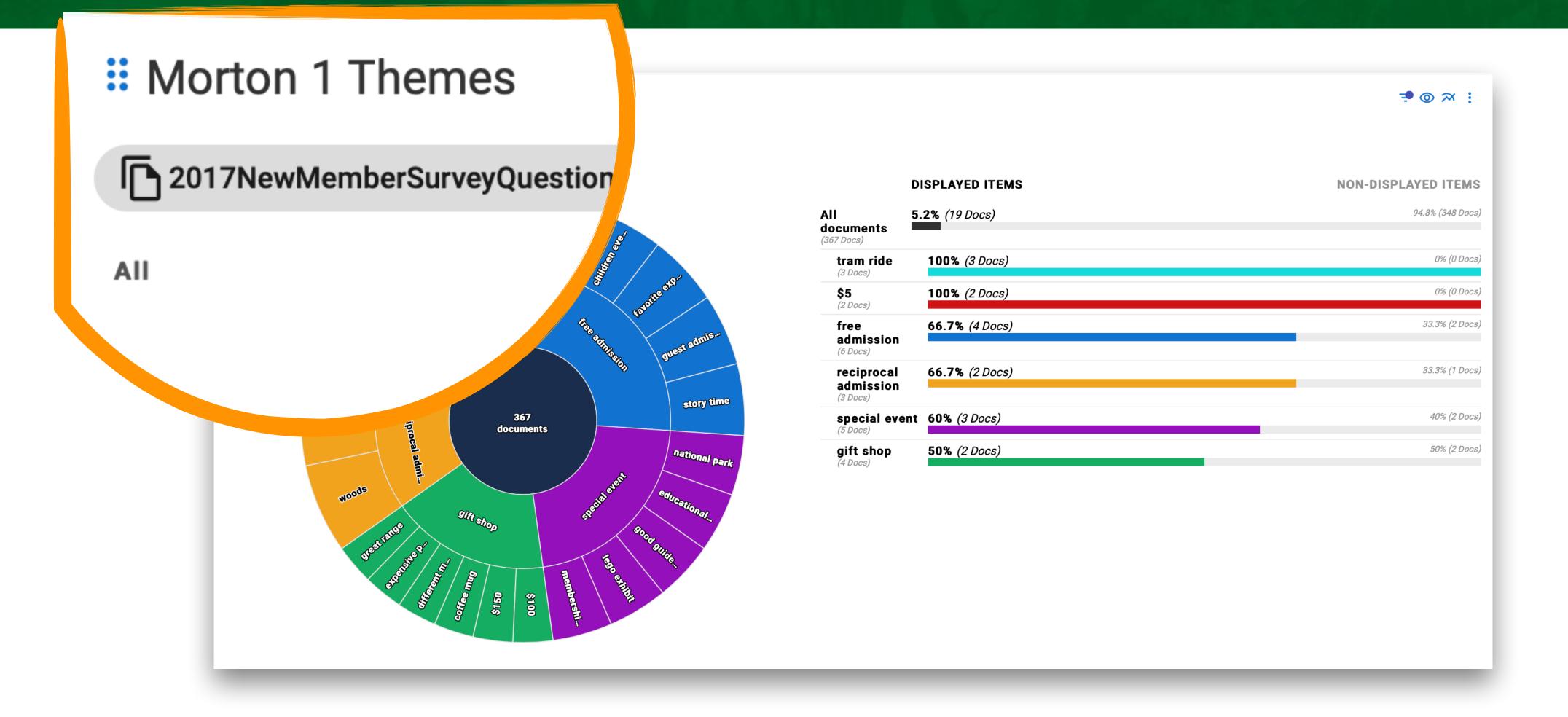
Activities&Ex hibits

(15 Docs)

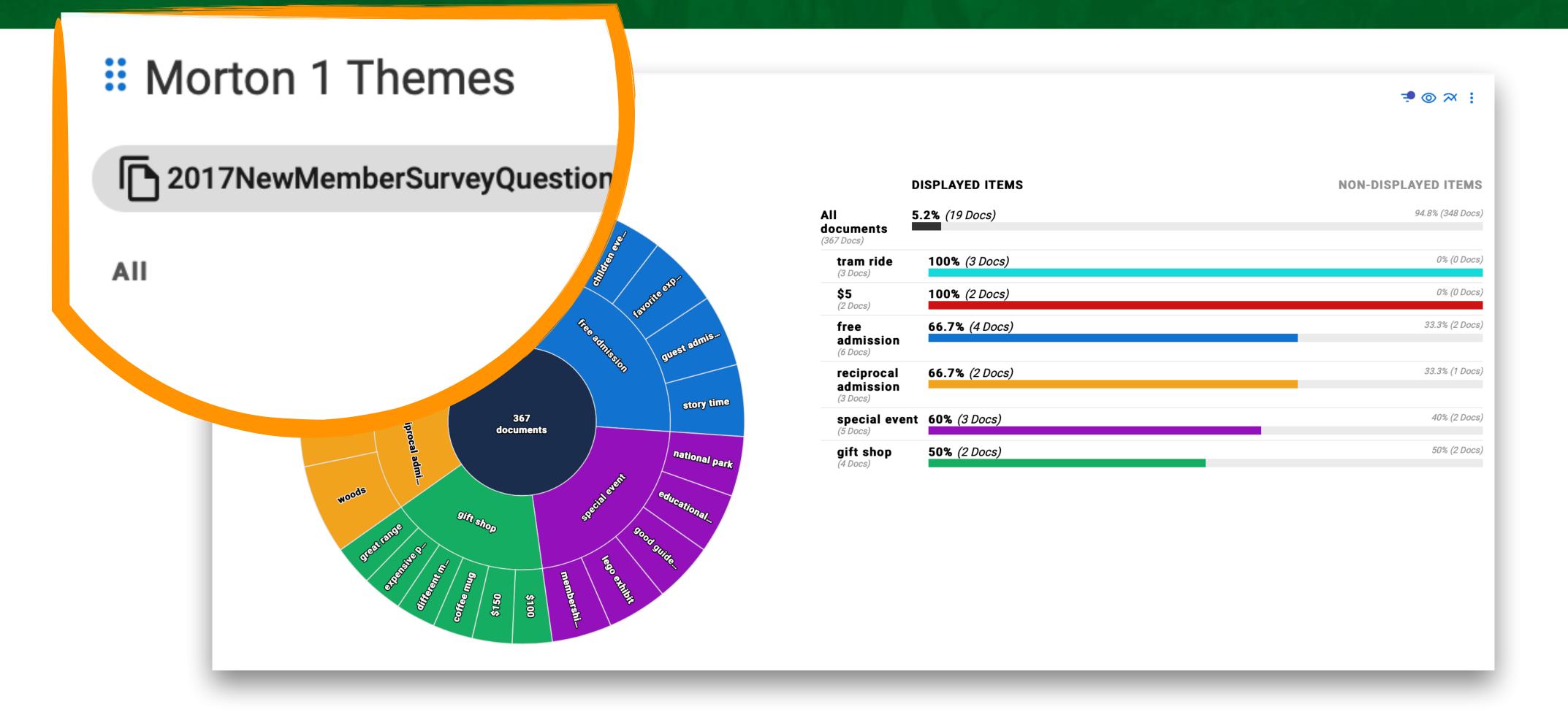




Morton 1



Morton 1 Themes

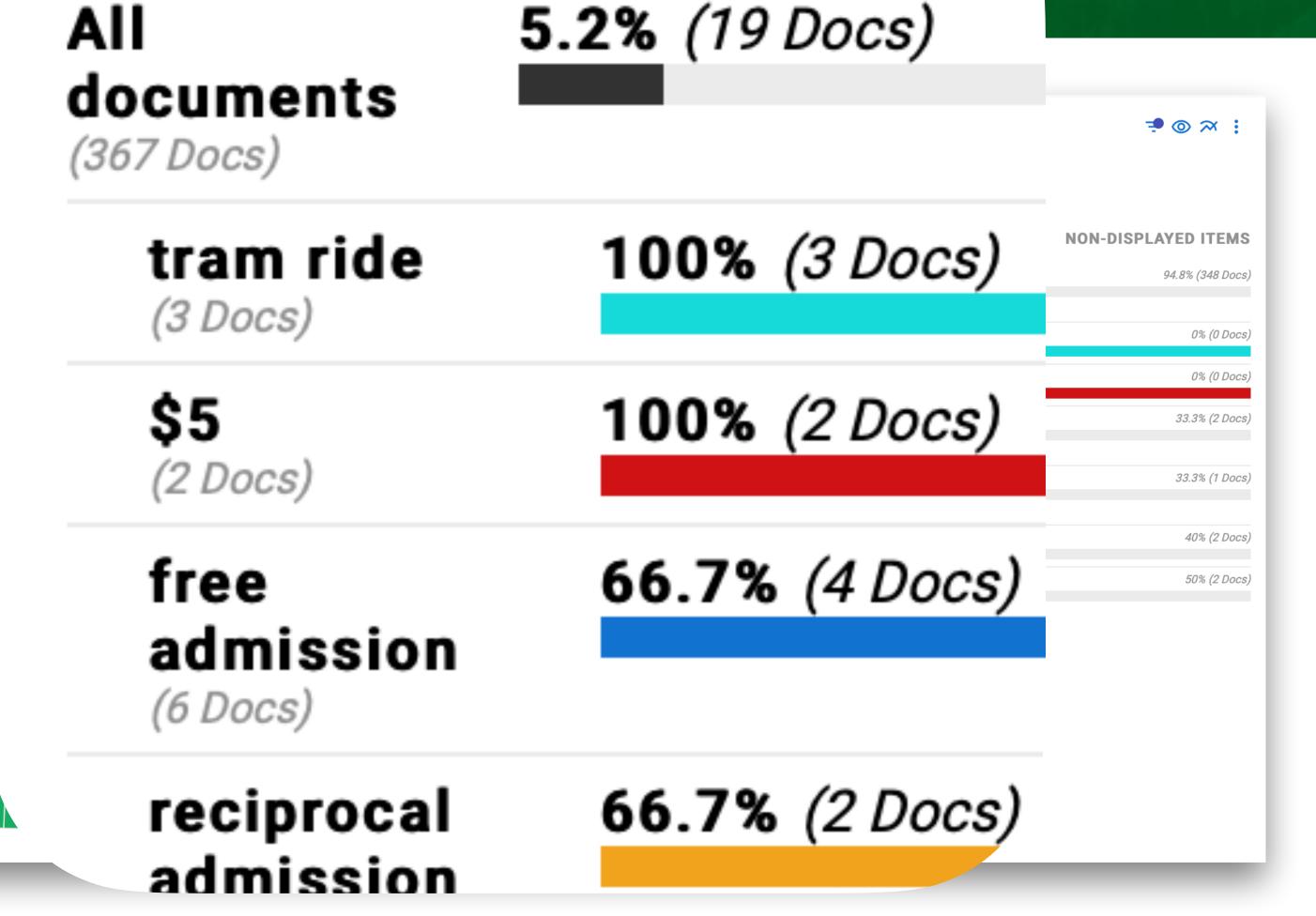


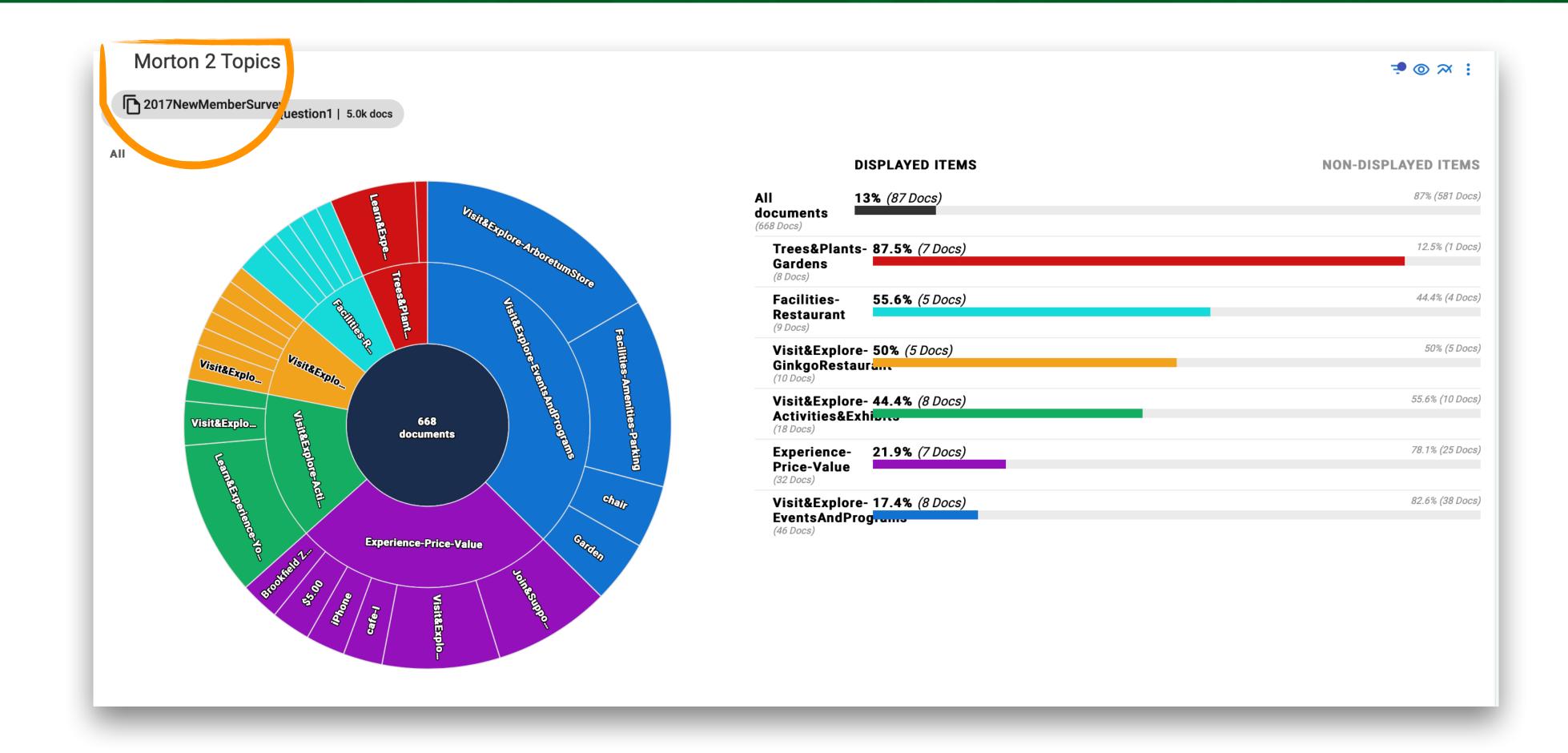
DISPLAYED ITEN

Morton 1 Themes

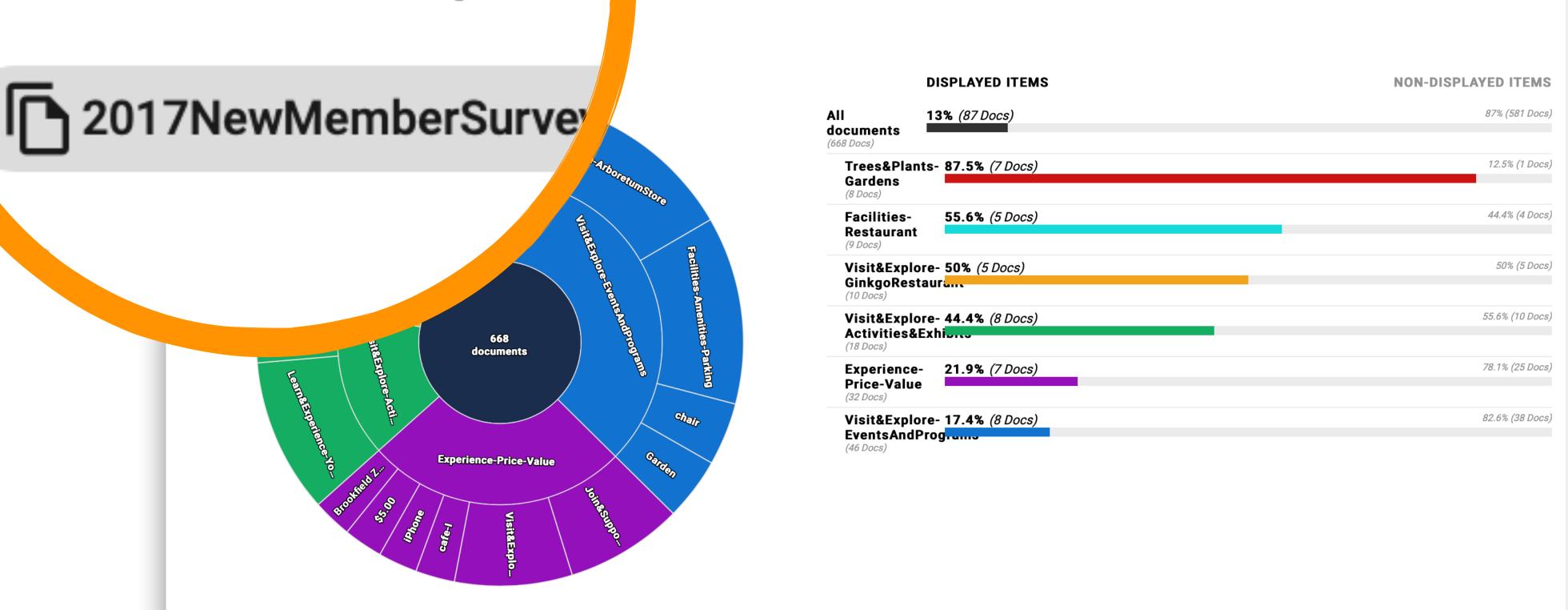
2017NewMemberSurvey

All





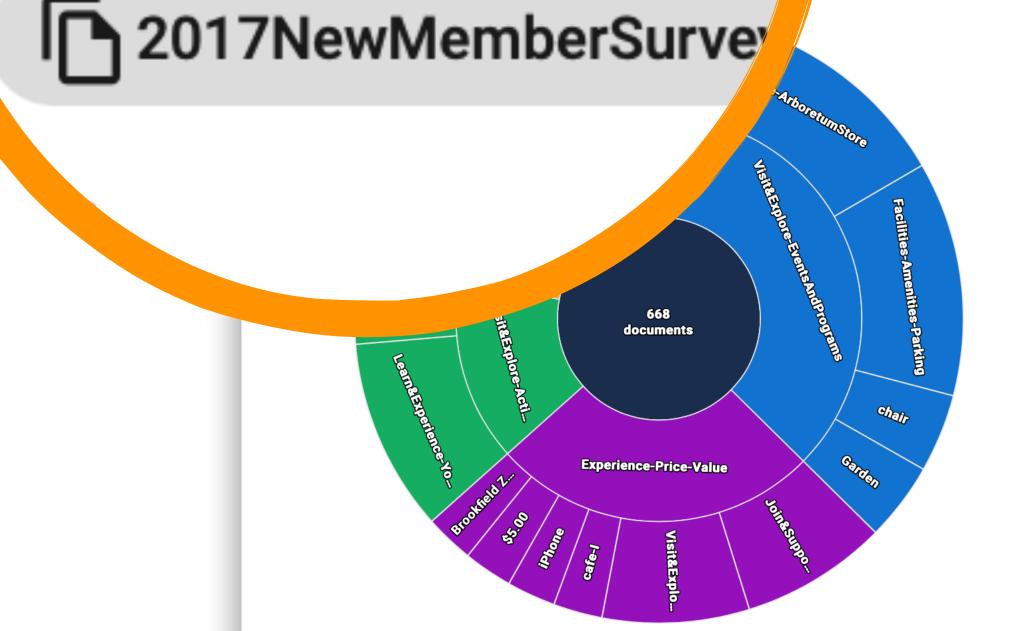
Morton 2 Topics

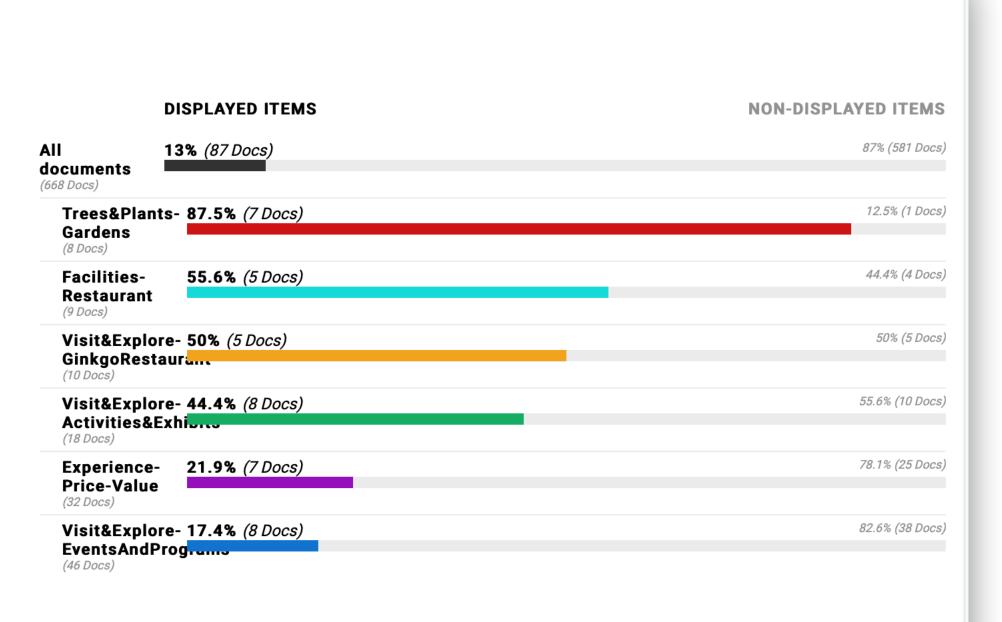


→ ◎ ≈ :

Morton 2

Morton 2 Topics



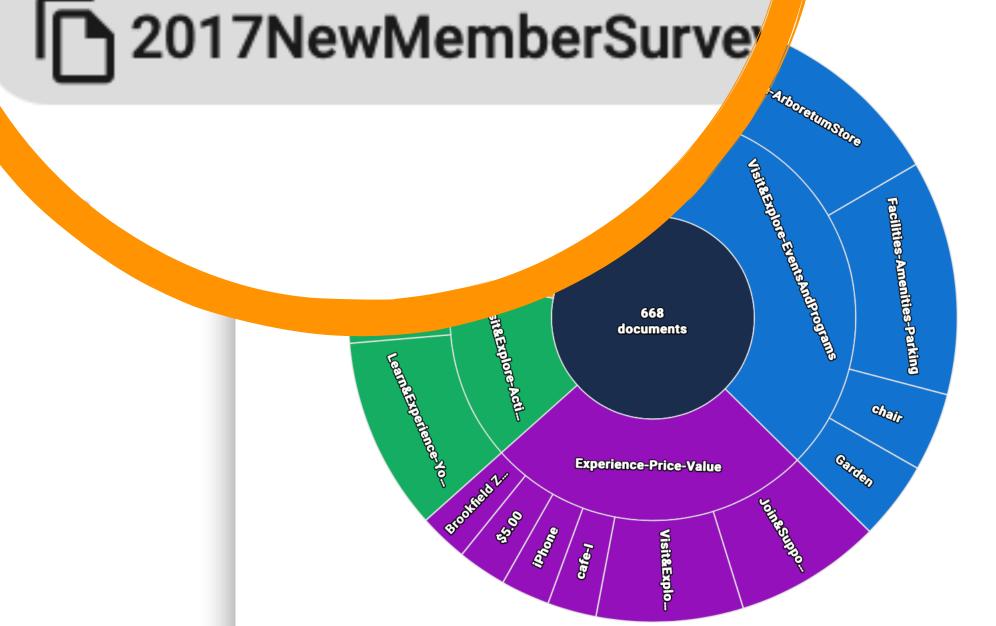


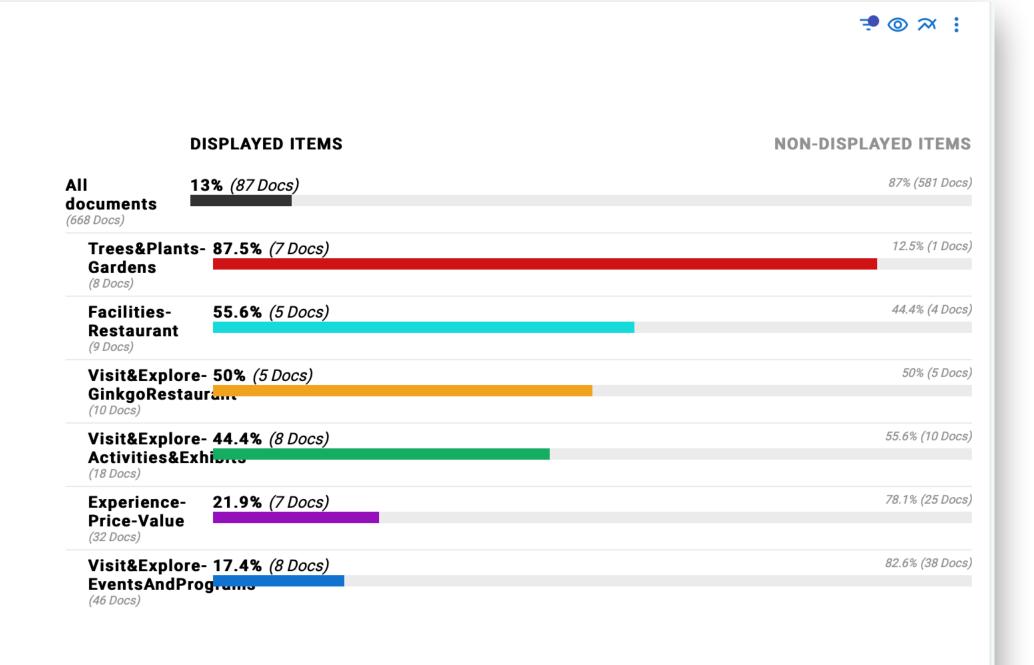
→ ⊙ ≈

Morton 2

Topics

Morton 2 Topics

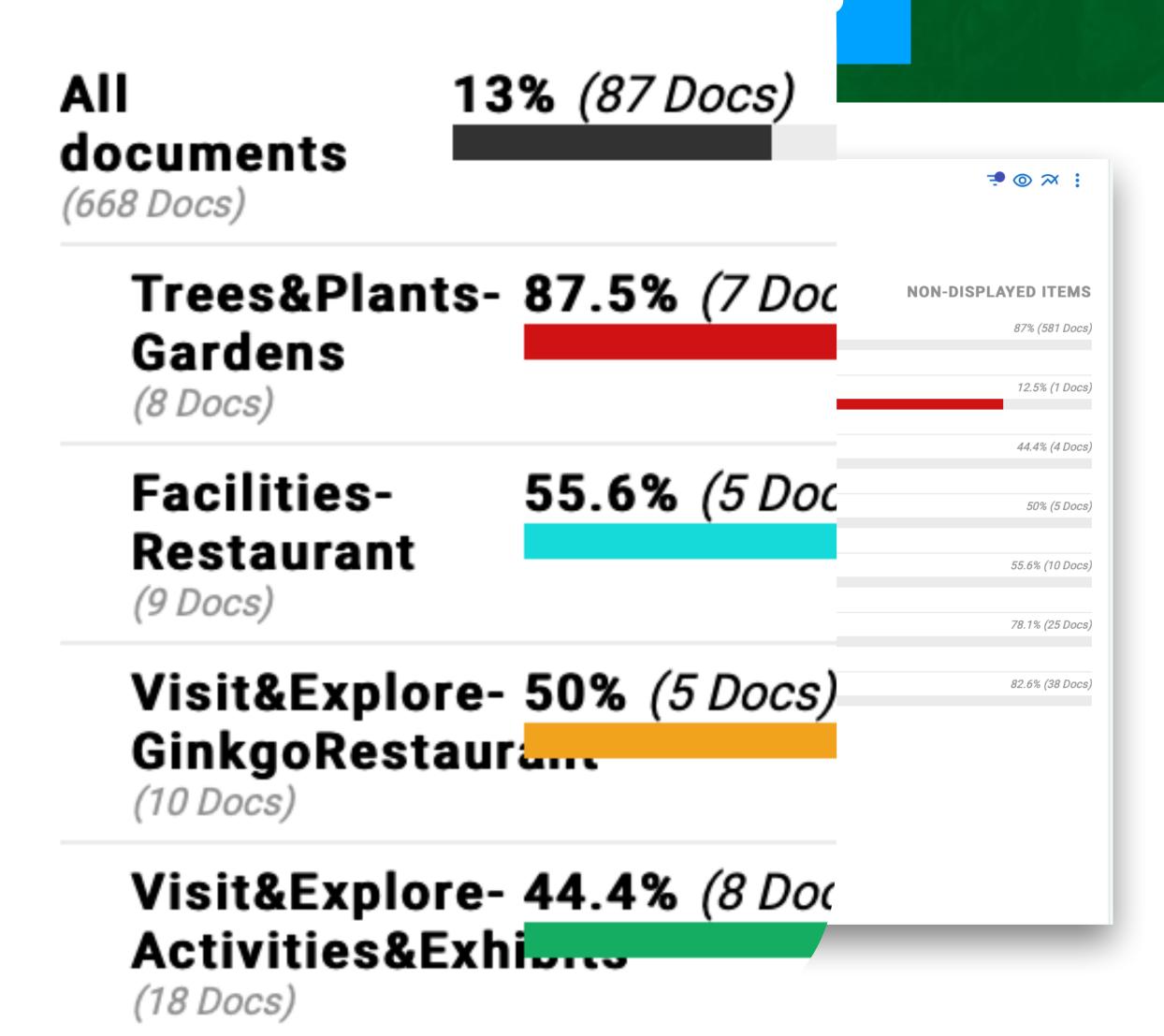


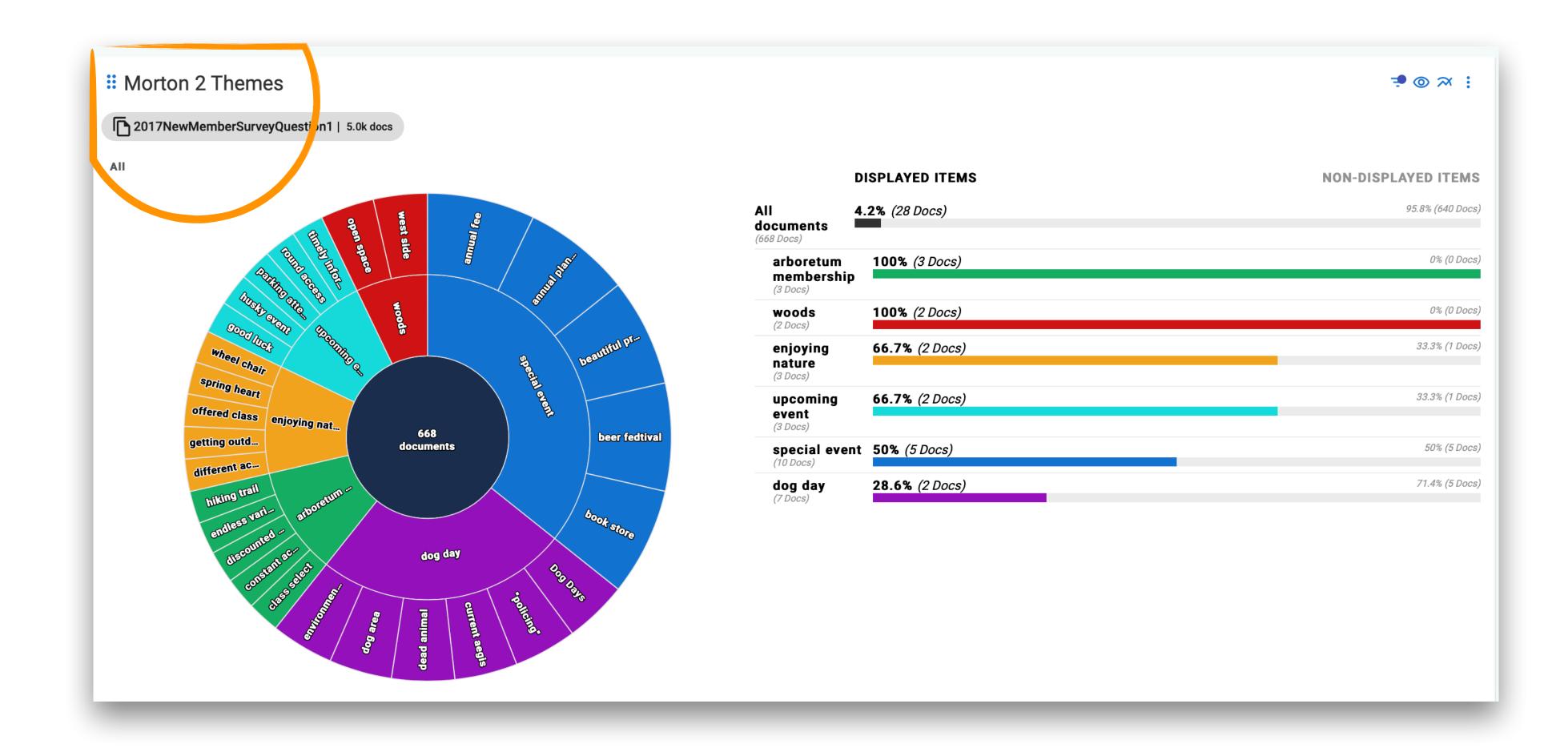


Morton 2 To



DISPLAYED ITE

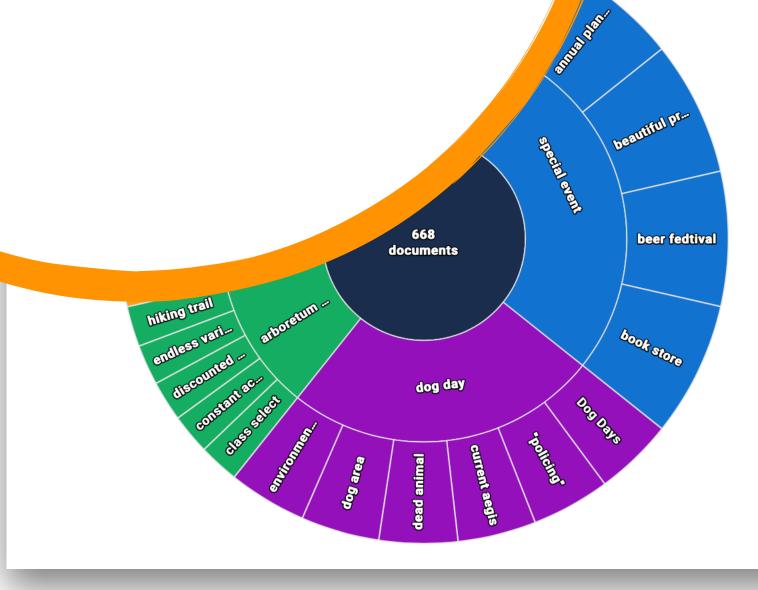


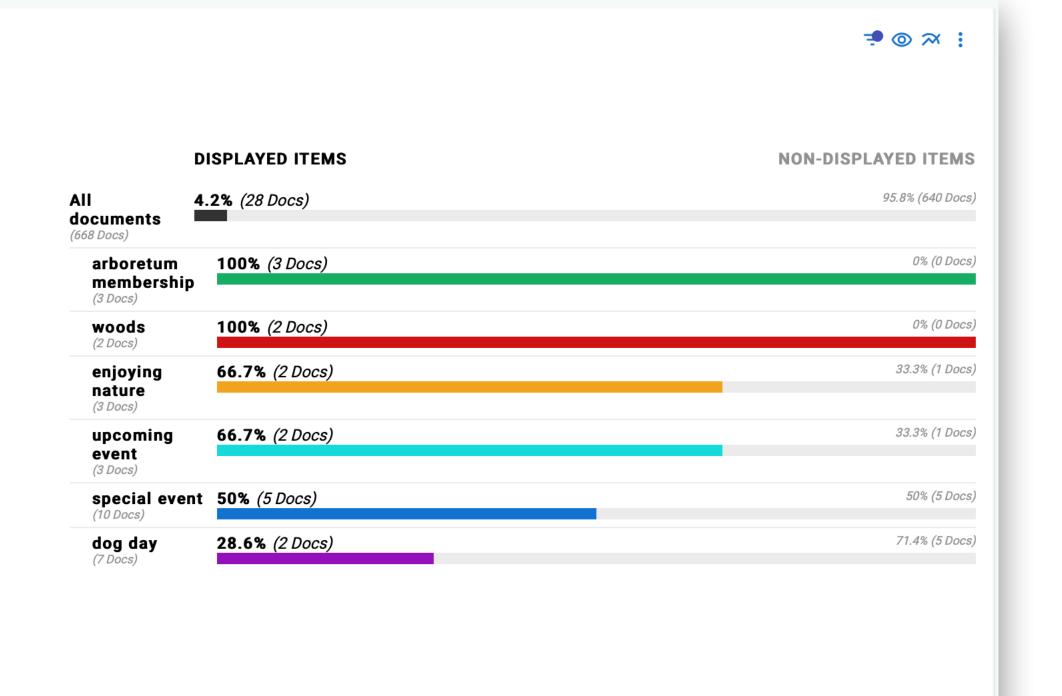


Morton 2 Themes

2017NewMemberSurveyQuesti

All



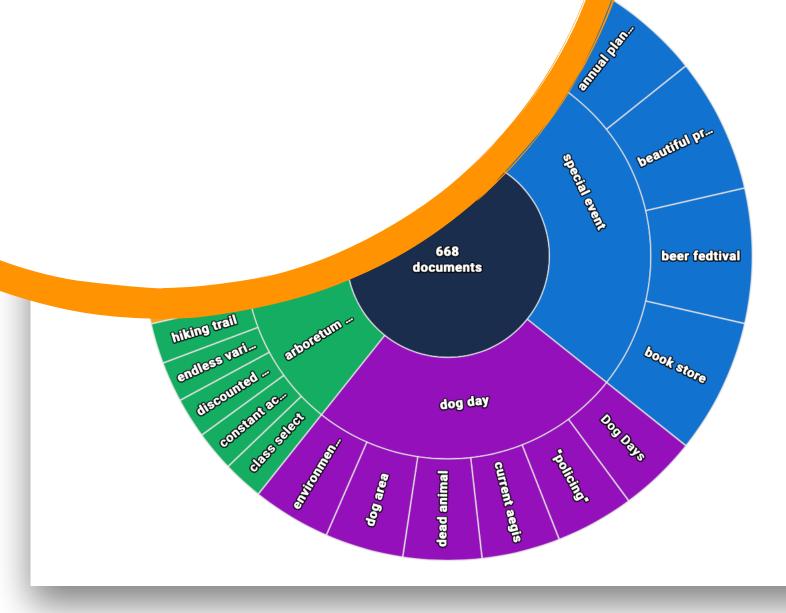


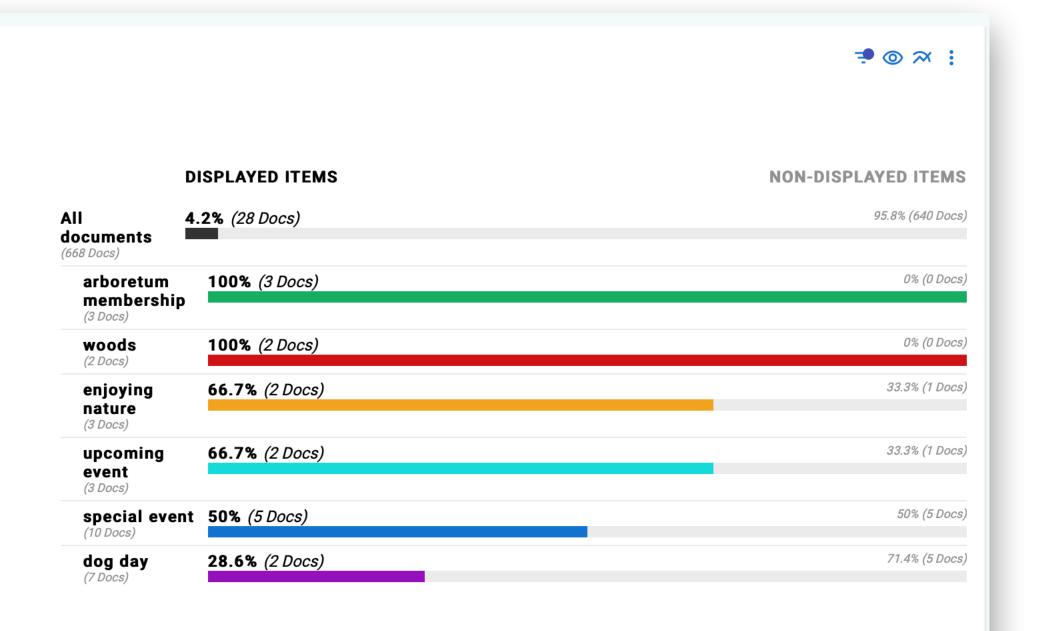
Morton 2

Morton 2 Themes

2017NewMemberSurveyQuesti

All



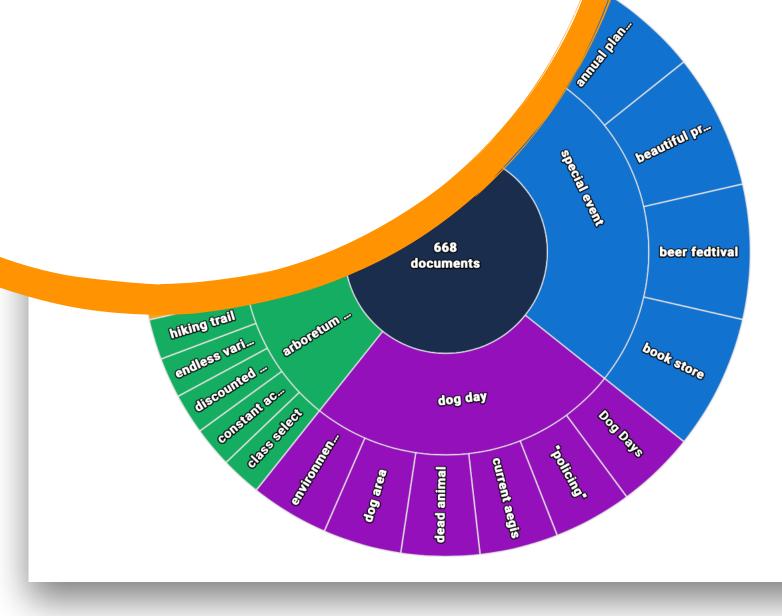


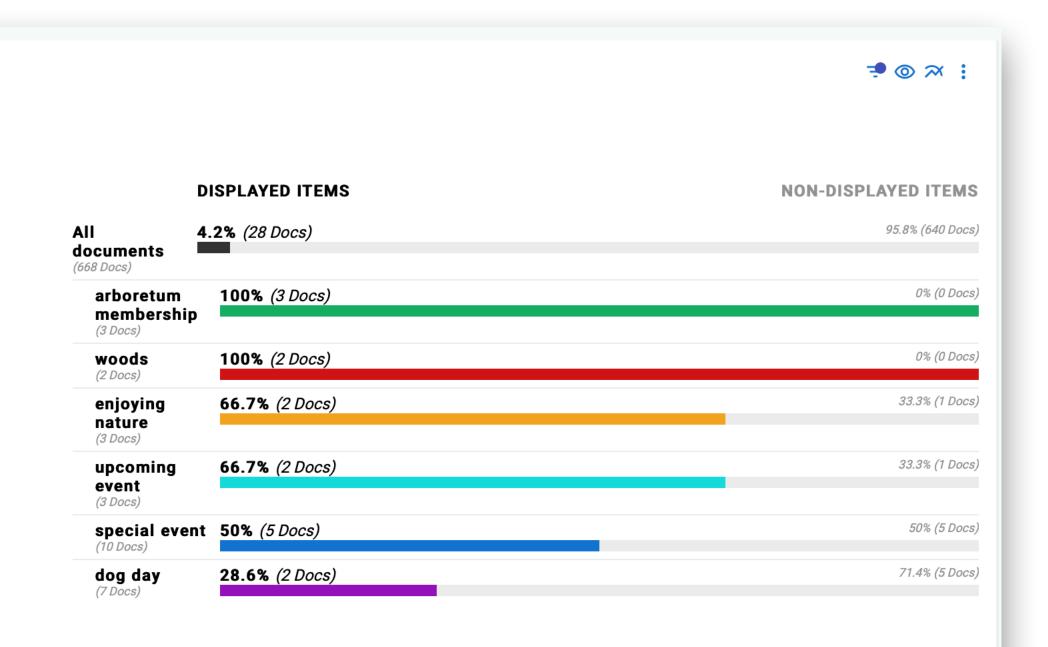
Morton 2 Themes





ΑII

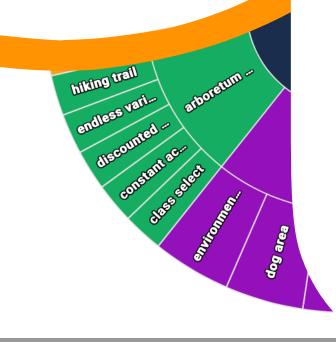




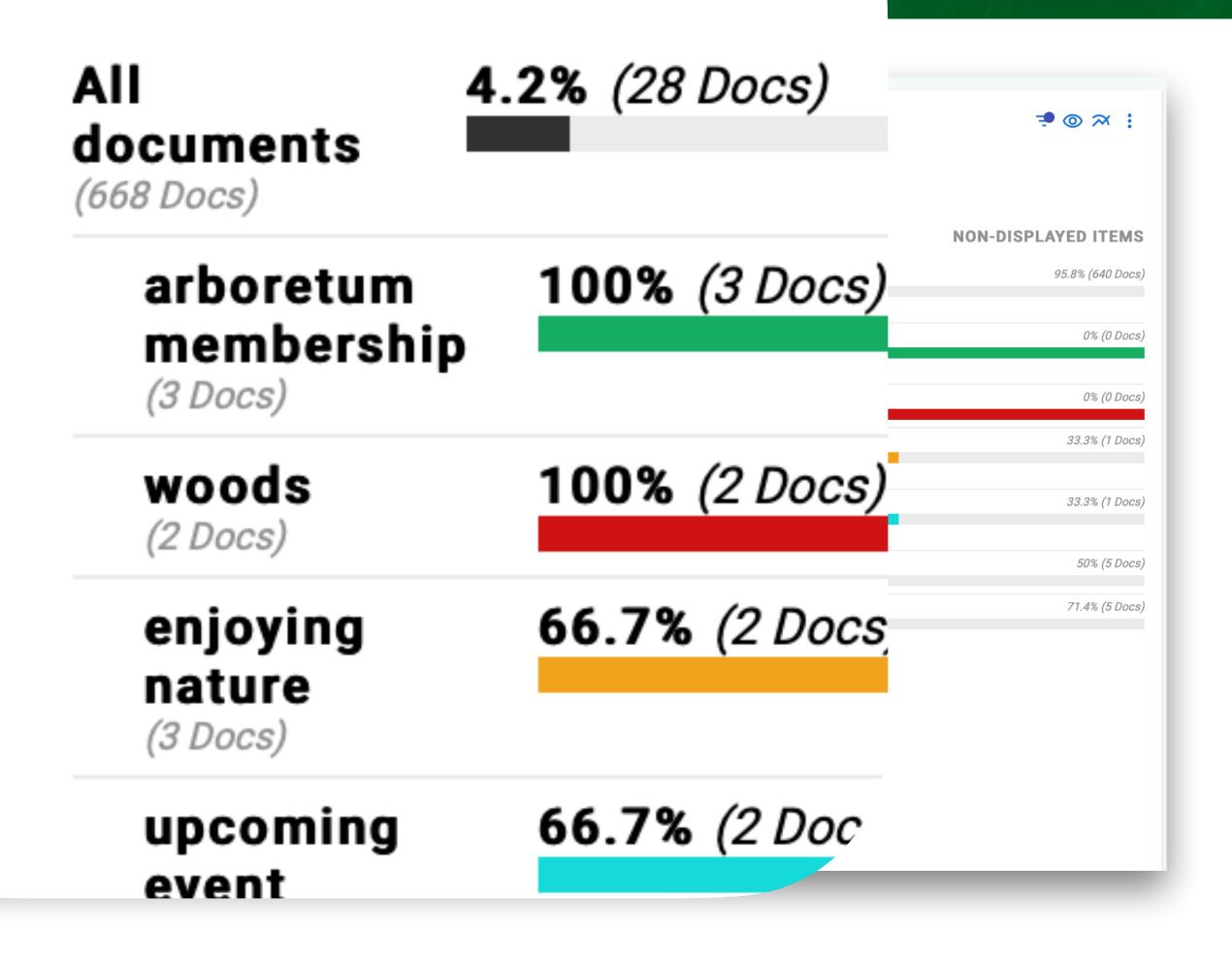
Morton 2 Then

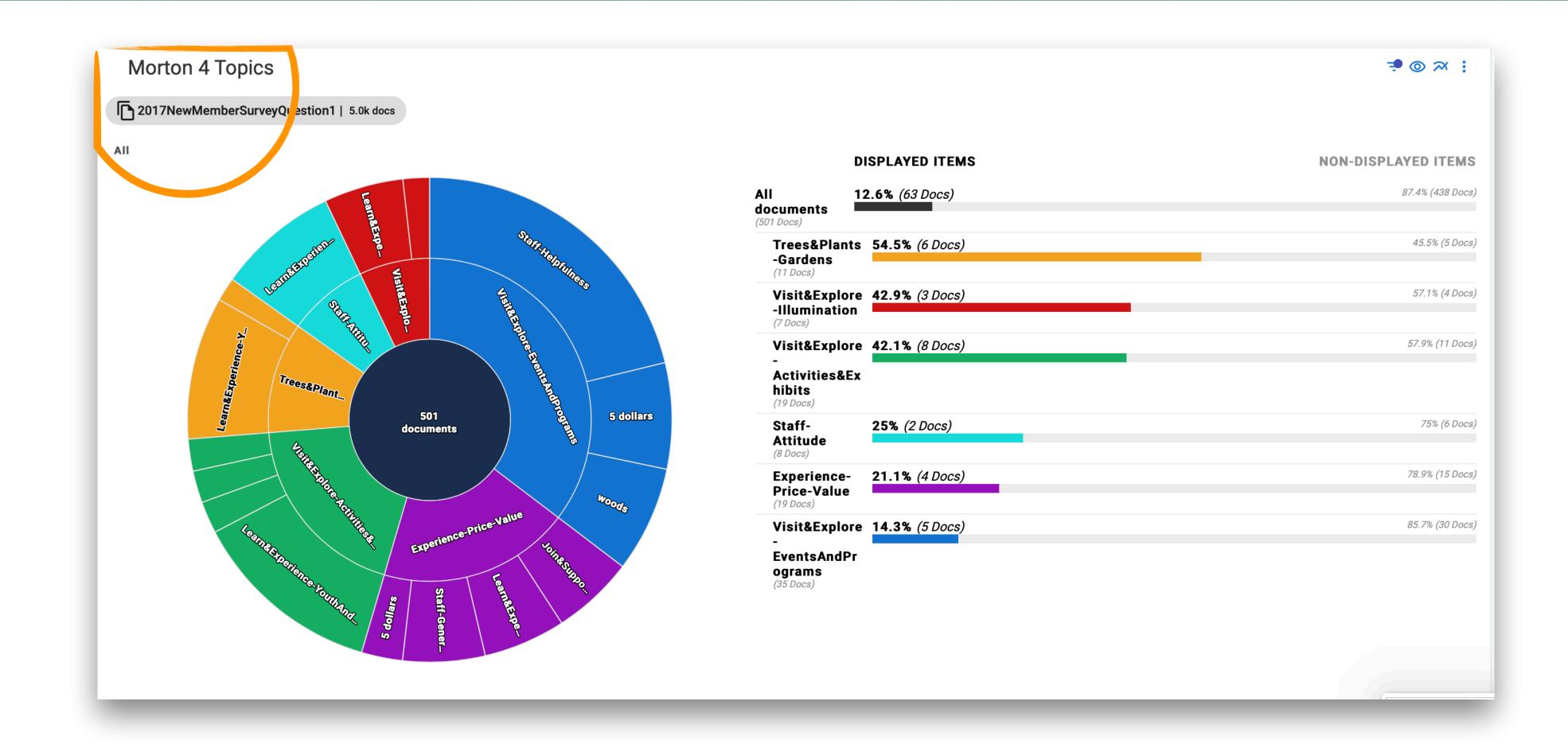


ΑII

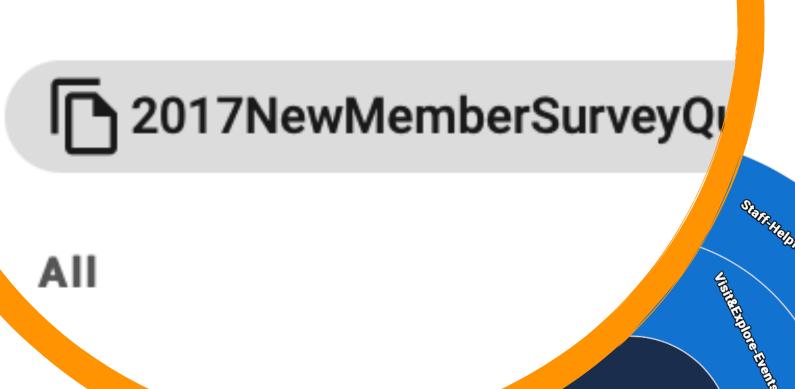


DISPLAYED ITEN





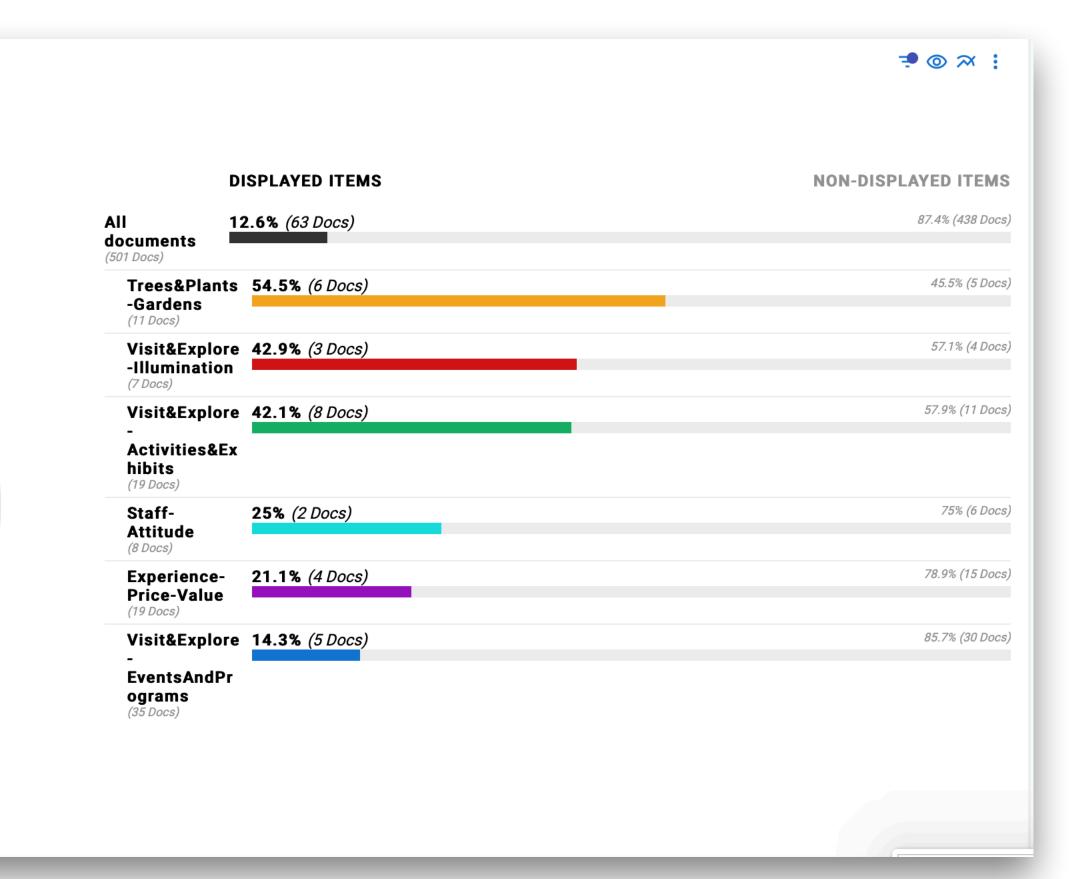
Morton 4 Topics



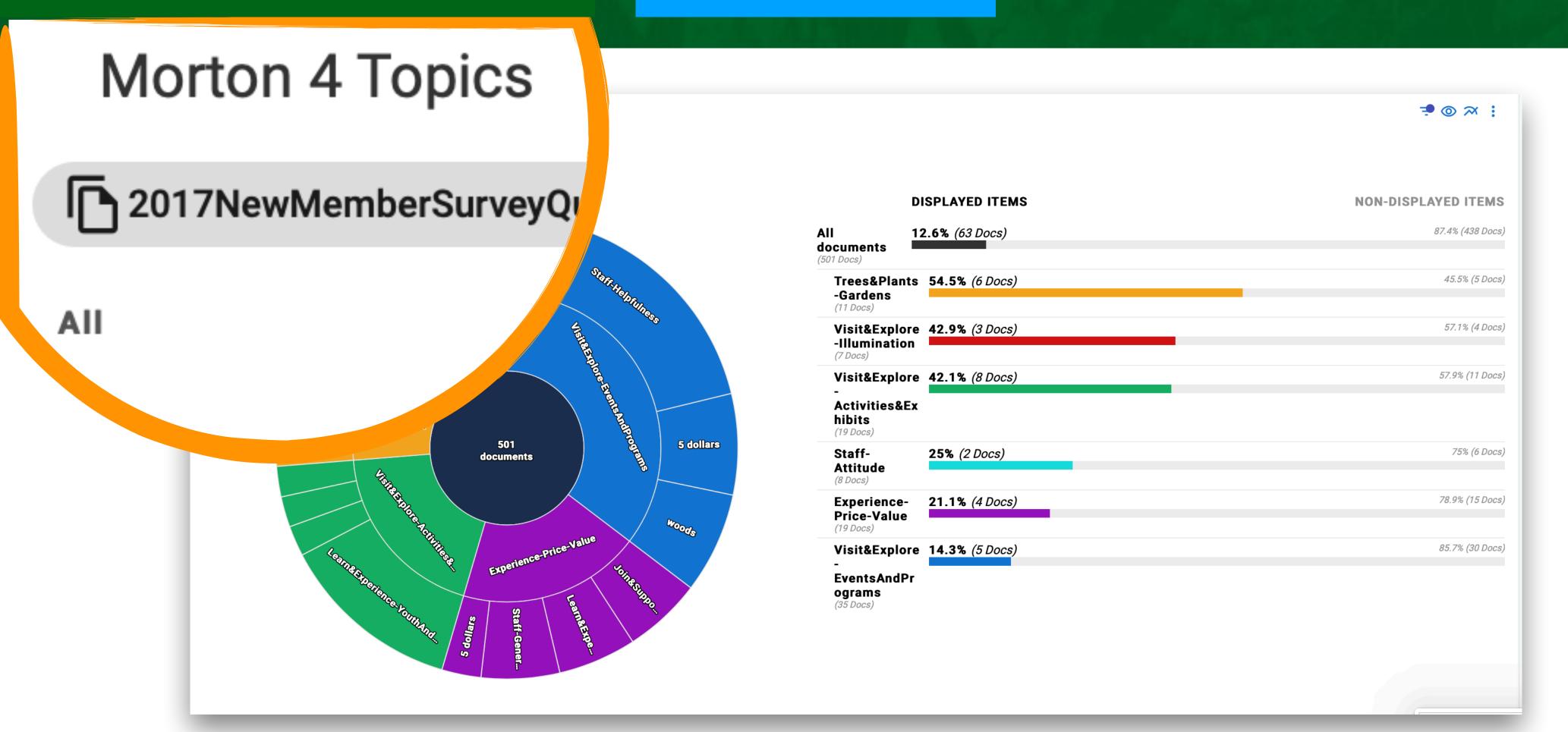
501

5 dollars

woods

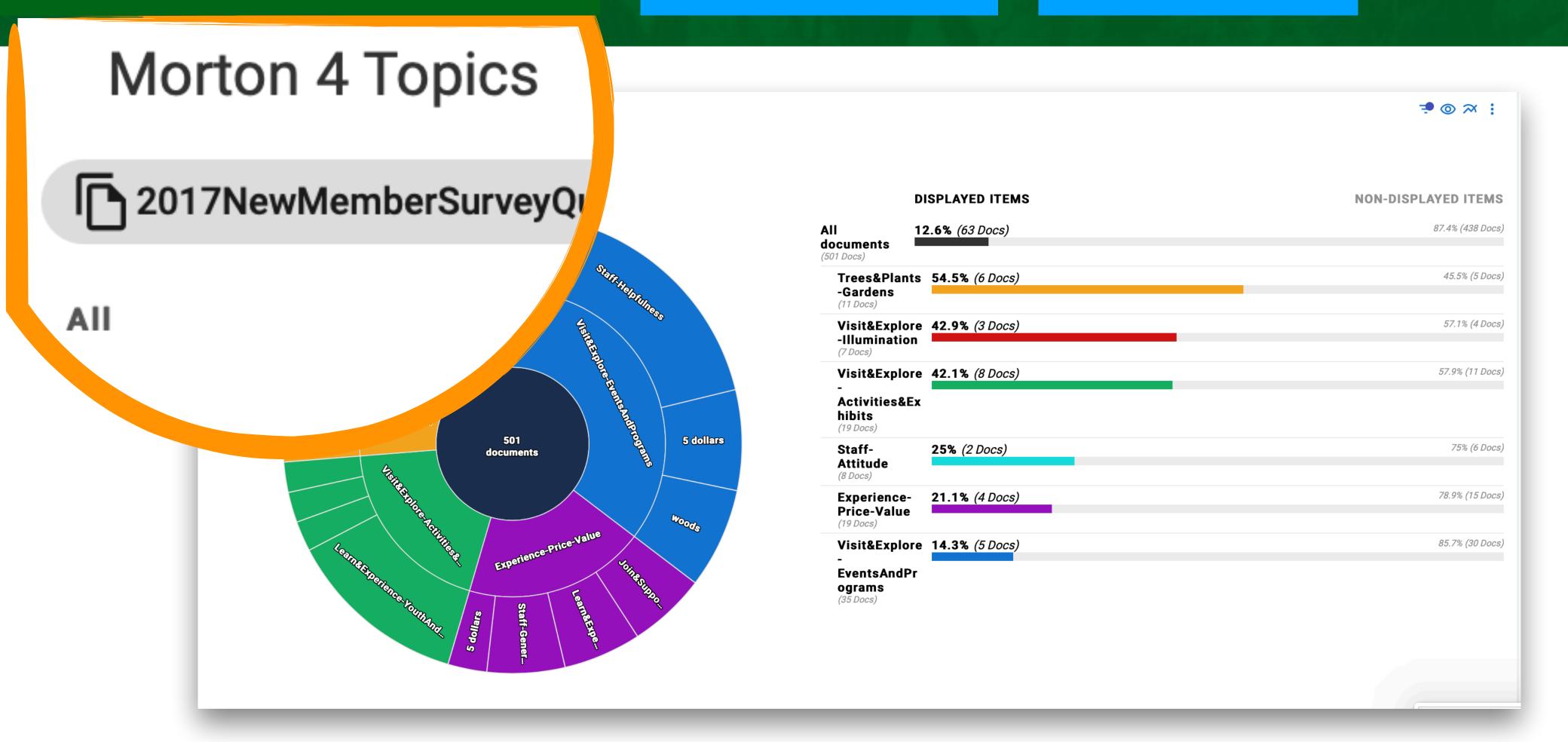


Morton 4



Morton 4

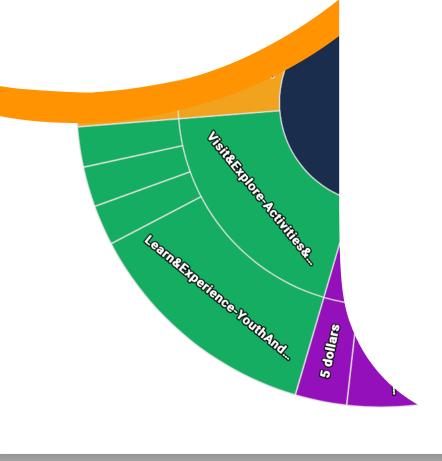
Topics



Morton 4 Topi

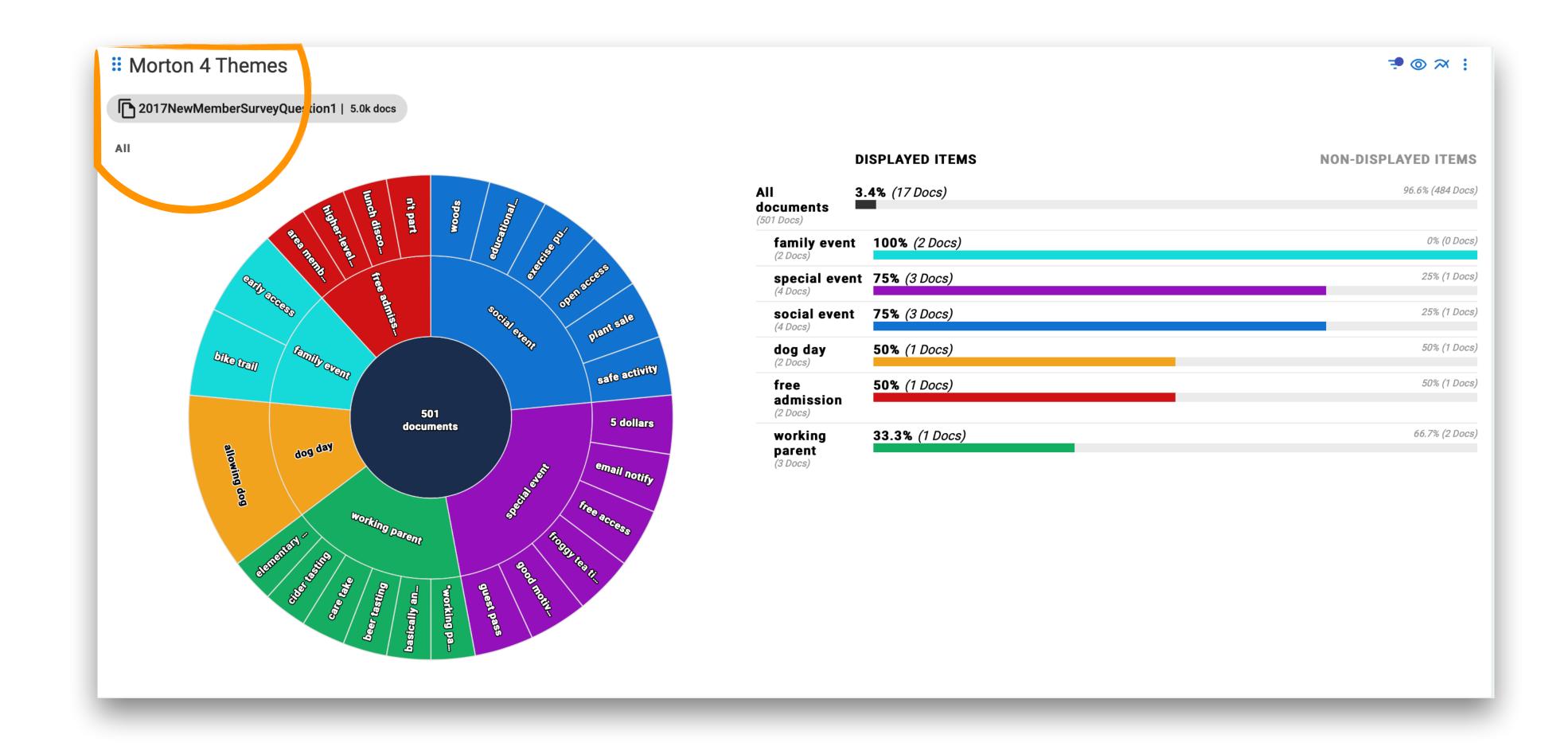


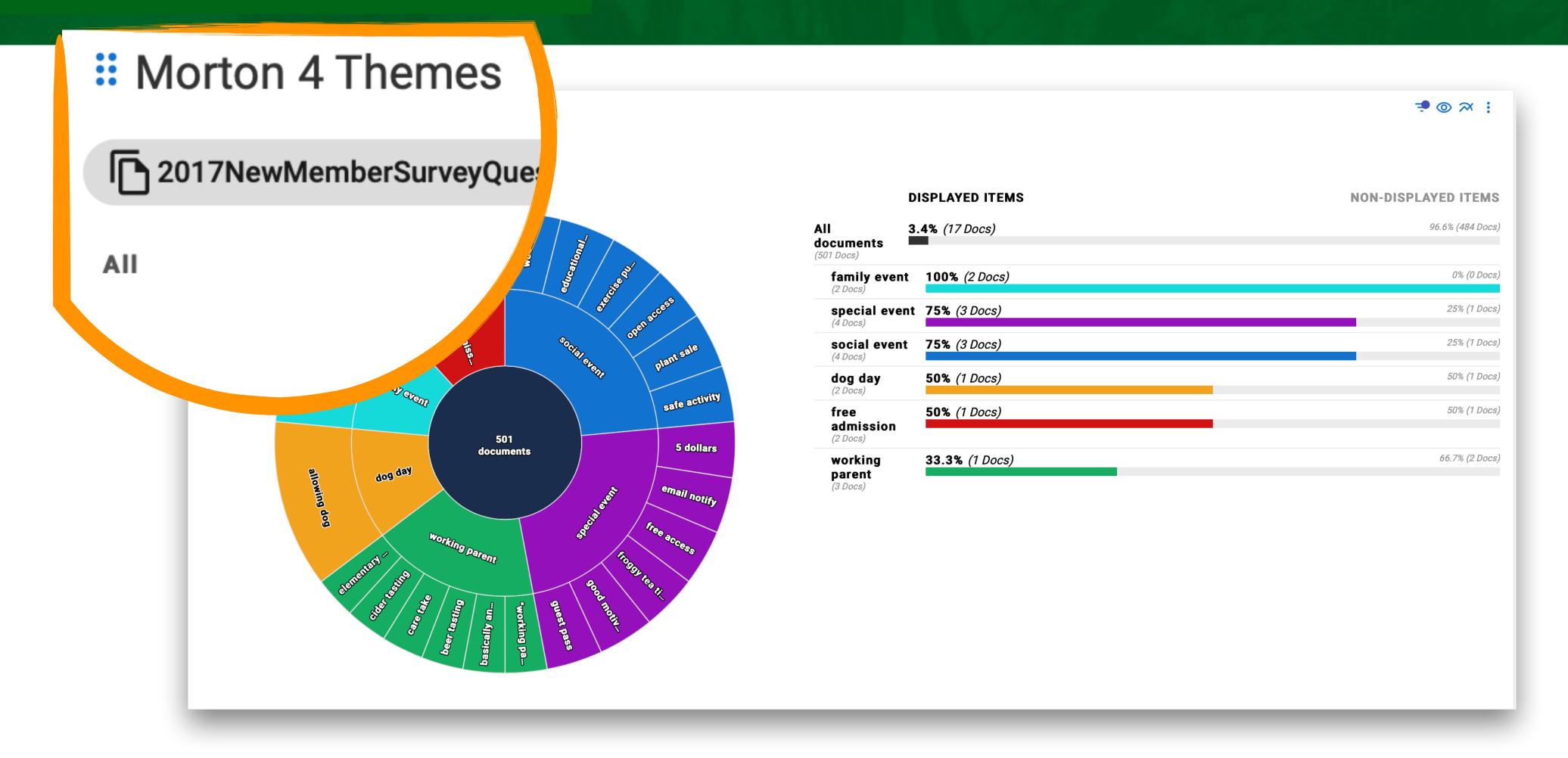
All



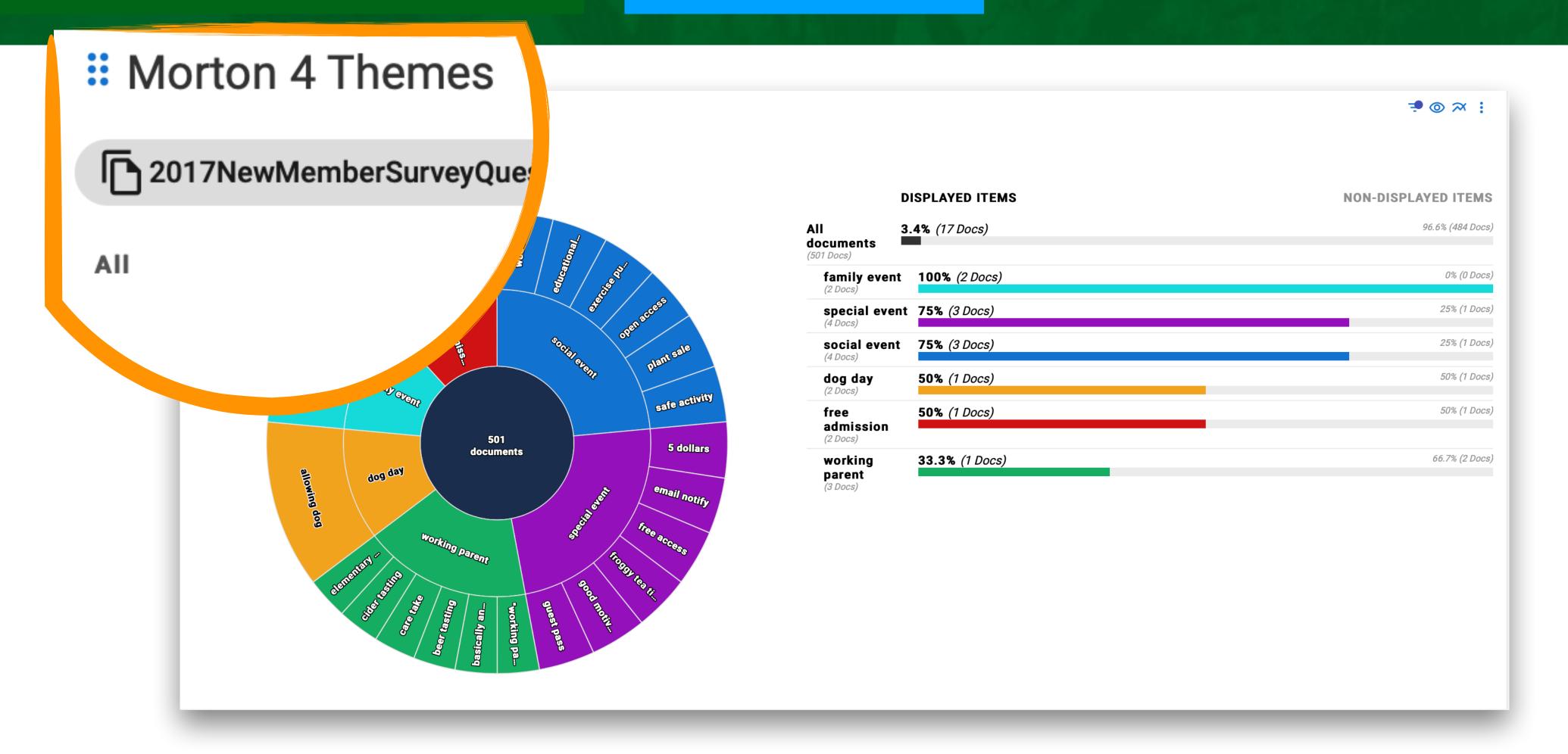
DISPLAYED ITE

documents	2. 6% (63 Docs)	
(501 Docs)		NON-DISPLAYED ITEMS
Trees&Plants	54.5% (6 Doc	87.4% (438 Docs
-Gardens (11 Docs)		57.1% (4 Docs
Visit&Explore	42.9% (3 Doc	57.9% (11 Docs
-Illumination		75% (6 Docs
(7 Docs)		78.9% (15 Docs
Visit&Explore	42.1% (8 Doc	85.7% (30 Docs
- Activities&Ex		

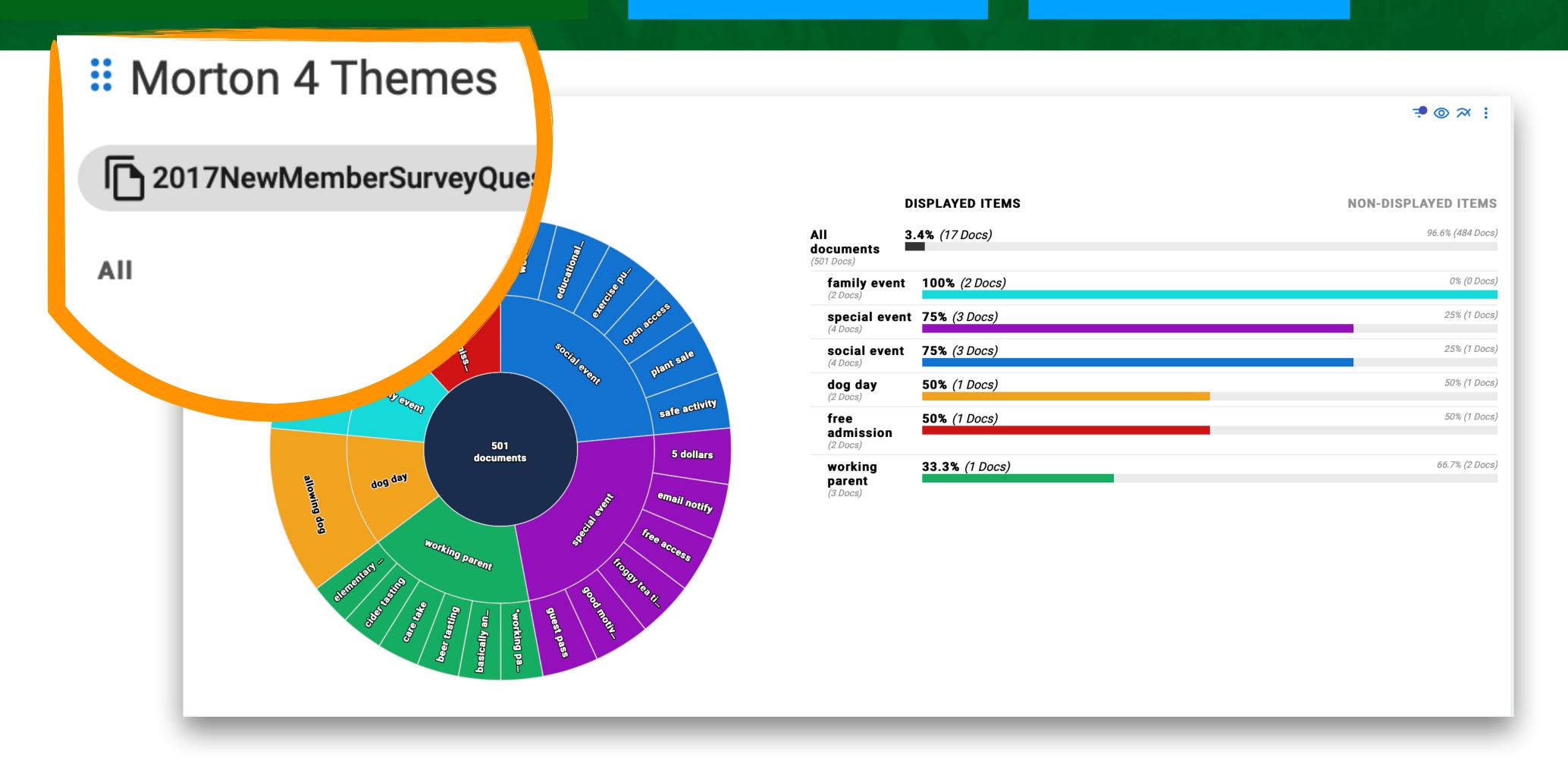




Morton 4

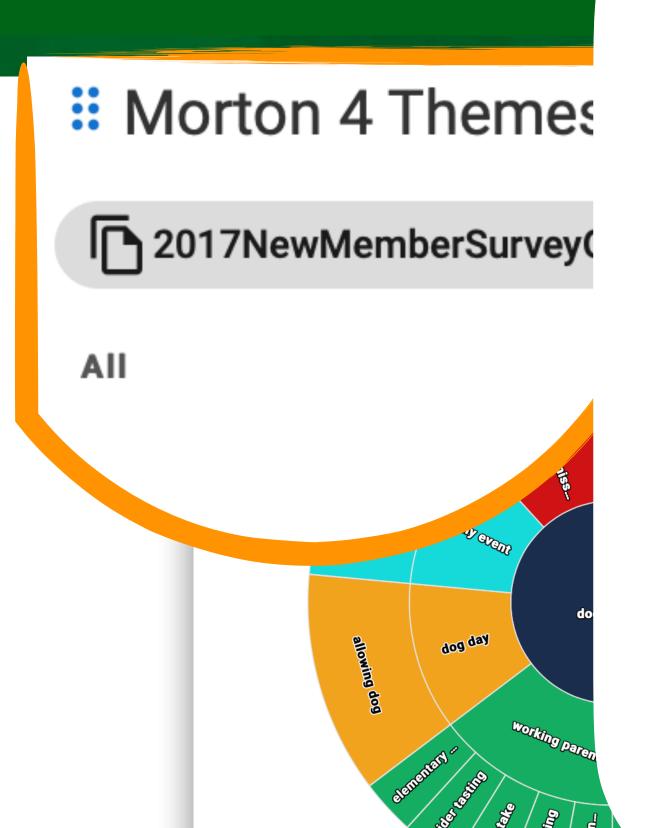


Morton 4 Themes



PS

DISPLAYED ITE



All 3. documents	4% (17 Docs)	NON-DISPLAYED ITEMS
family event	100% (2 Docs	0% (0 Docs,
special event	75% (3 Docs)	25% (1 Docs) 50% (1 Docs) 50% (1 Docs)
social event	75% (3 Docs)	66.7% (2 Docs)
dog day	50% (1 Docs	



















People like the abundance of parking

Members value free parking very highly

Ability to park close to entrance and exhibits is a plus

Special event shuttles are appreciated

The member benefit of free parking enables drop-in visits

Environmentally friendly parking lot design

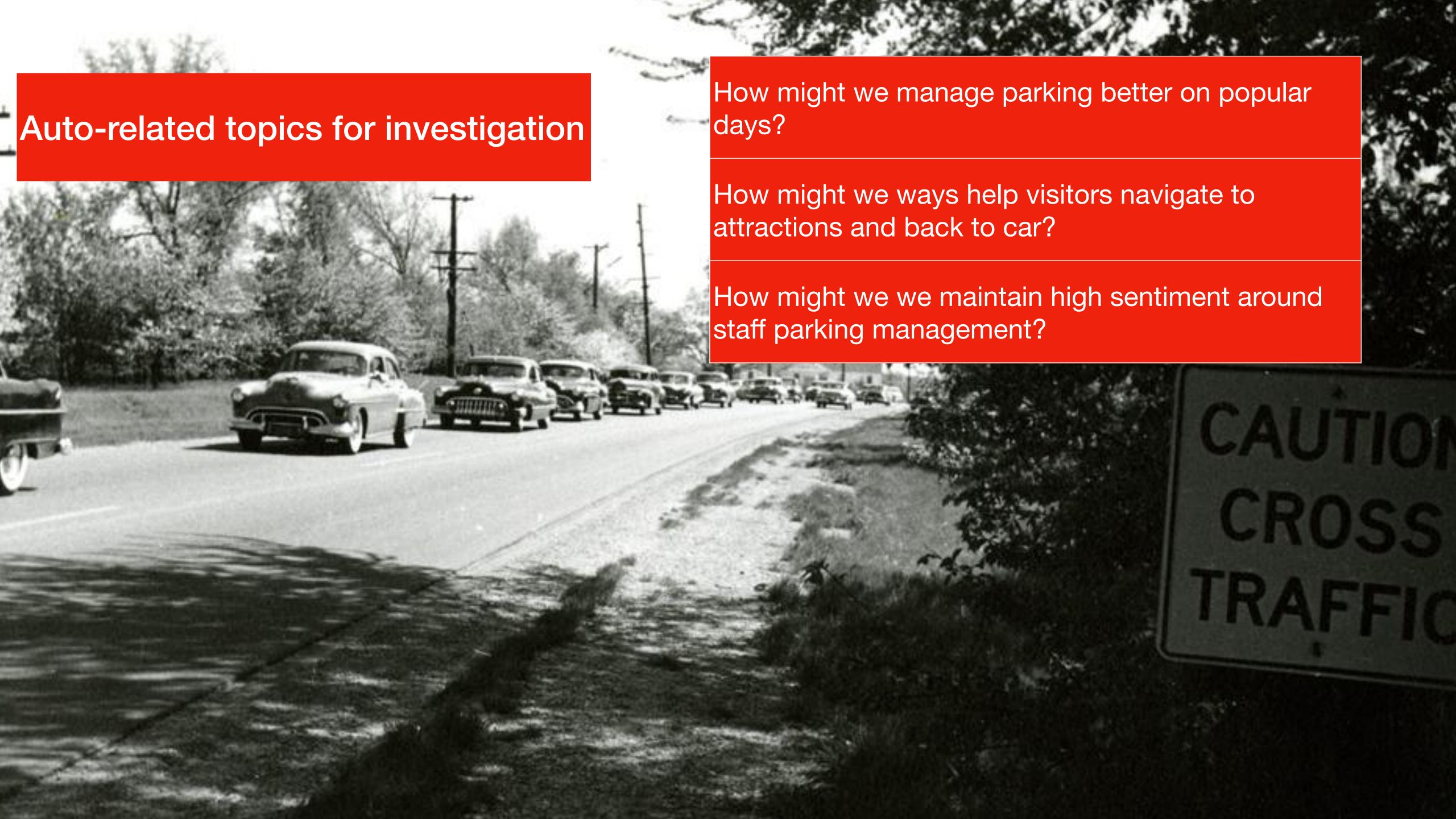
Timed ticketing has improved parking



















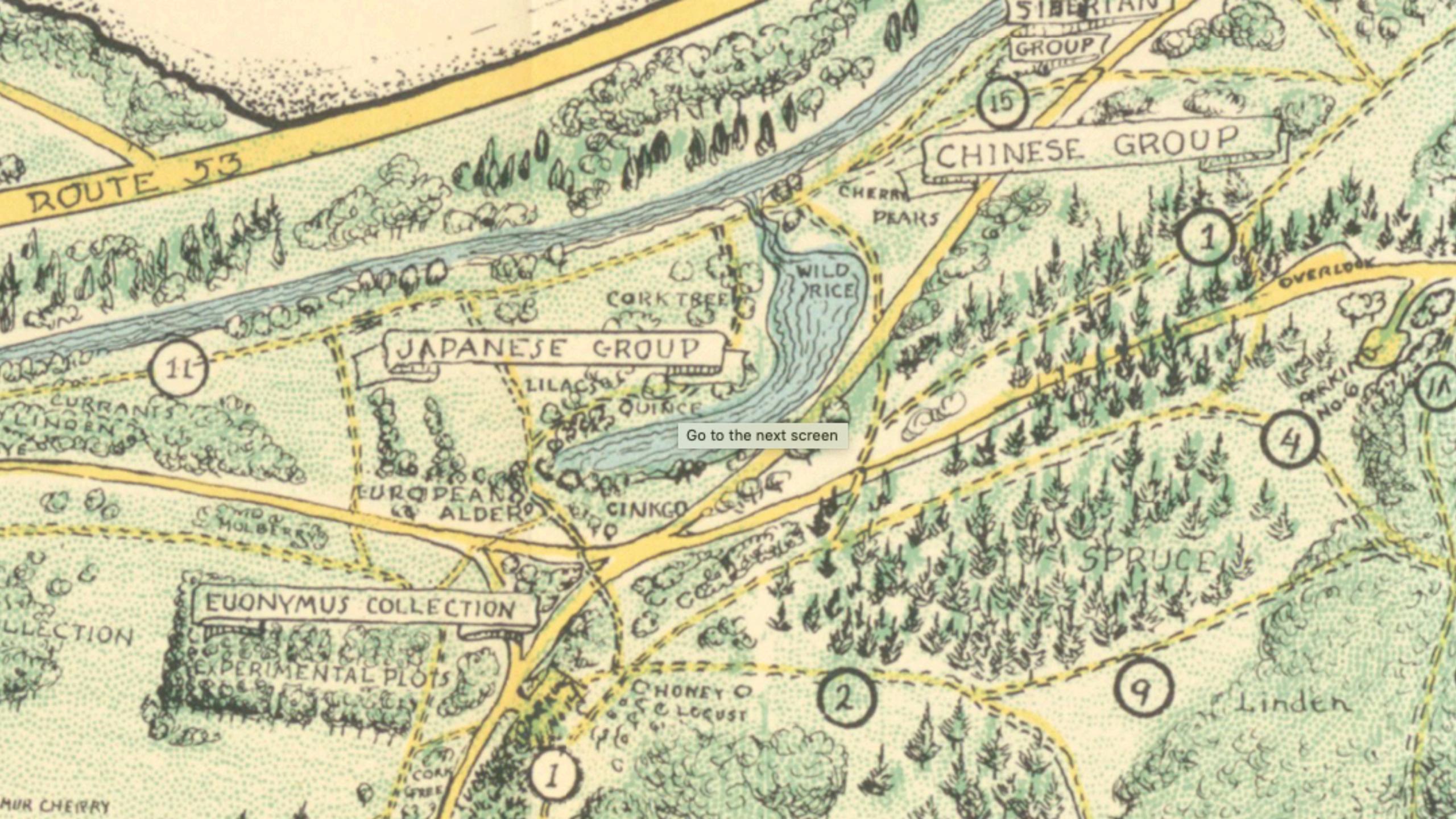






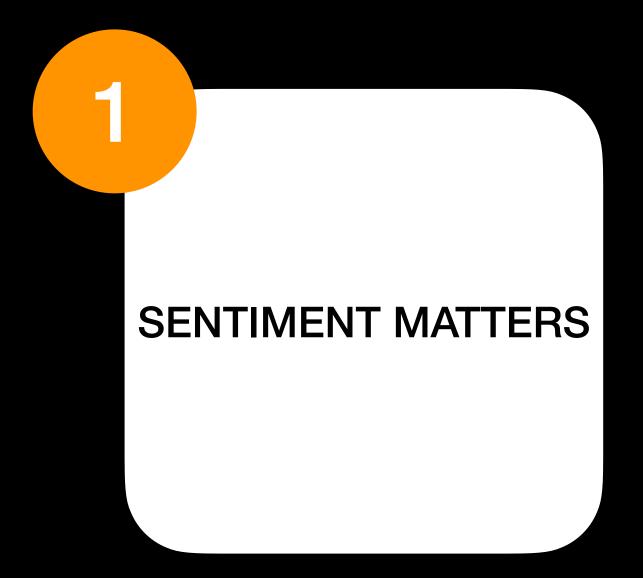








Where does The Arboretum go from here?



SENTIMENT MATTERS

SENTIMENT CAN BE MEASURED

SENTIMENT MATTERS

SENTIMENT CAN BE MEASURED

SENTIMENT CAN BE MANAGED

Karin Jaros
Director of Membership
The Morton Arboretum
kjaros@mortonarb.org
(630) 725-2043



Eric Deaton
Principal
Sentiment+Science
eric@sentimentscience.co
(630) 258-2969



Kevin Denney
Principal
Sentiment+Science
kevin@sentimentscience.co
+852 6842 0538



mortonarb.org

Karin Jaros Director of Membership The Morton Arboretum kjaros@mortonarb.org



(630) 725-2043





Kevin Denney

Principal Sentiment+Science kevin@sentimentscience.co +852 6842 0538





That's not a typo

mortonarb.org

Karin Jaros Director of Membership The Morton Arboretum kjaros@mortonarb.org



(630) 725-2043











That's not a typo

mortonarb.org

Karin Jaros The Morton Arboretum kjaros@mortonarb.org



Director of Membership (630) 725-2043







Principal Sentiment+Science kevin@sentimentscience.co +852 6842 0538



That's Kevin's Phone number. Really. Try Whatsapp



That's not a typo

mortonarb.org