

# SAS® GLOBAL FORUM 2018

USERS PROGRAM

## Persuading with Data Stories

Is Jaws Misunderstood?

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#SASGF

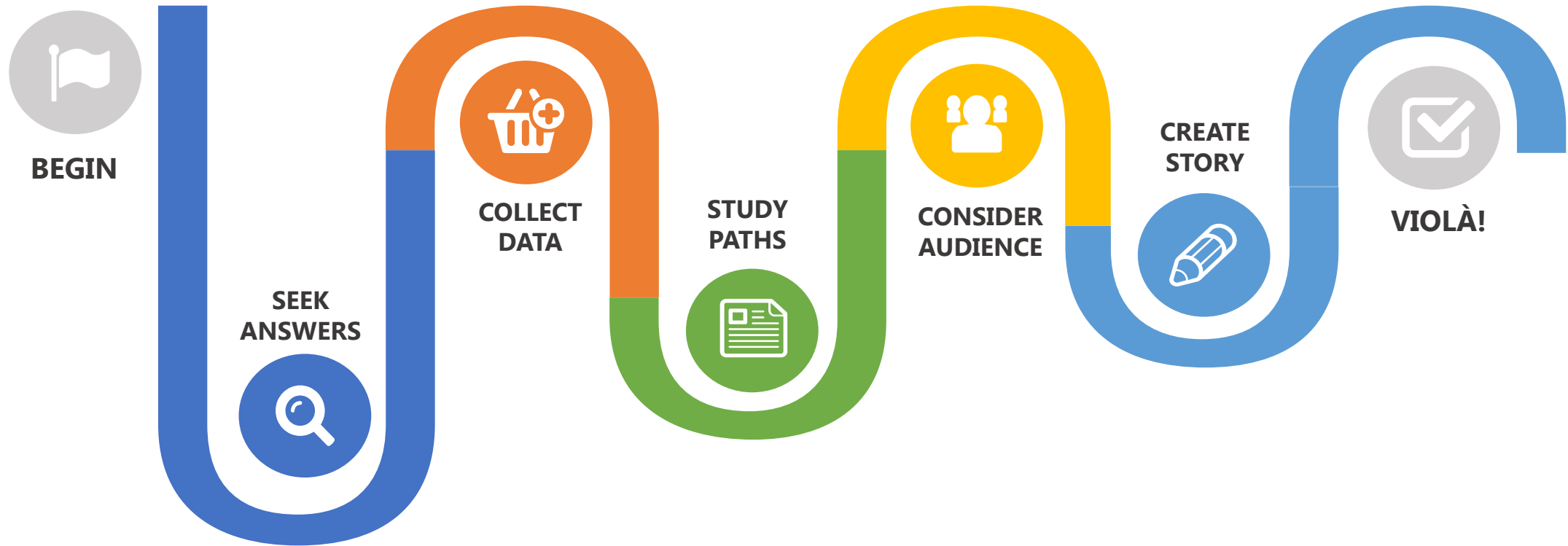


## Is Jaws Misunderstood?

I want to convince you that not all sharks are like the one in the movie Jaws. “Jaws” was a Hollywood invention designed to get people out of the water and into theaters. The movie’s success created a fear in the minds of many that sharks are stalking, hunting, killing machines – but are they?

Let’s learn how to tell a persuasive data story...

# How do you write a Data Story?



**Let's learn how to implement this...**

## STEP 1

### Ask a question

- Are sharks really the villain?
- How many shark attacks occur worldwide?
- How many shark attack fatalities worldwide?
- What type of sharks attack the most?

SEEK  
ANSWERS



## STEP 2

### Consider Data Sources

OCEARCH  
Global Shark Attack Data  
International Shark Attack Data



COLLECT  
DATA

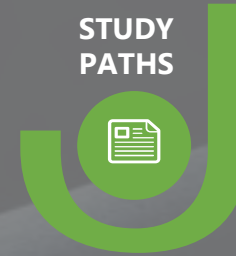
### Analyze & Investigate Data

What are the patterns?  
What is missing from the data?

## STEP 3

### Find the compelling theme:

Sharks have a mean demeanor, do their actions correlate to their appearance?



STUDY  
PATHS

Sharks rarely attack humans so there is no reason to fear them

### Find a compelling narrative:

Humanize a Great White Shark (@MaryLeeShark on Twitter)

## STEP 4

### Who is the audience?

- Beachgoers
- Coastal Public Officials
- Researchers
- General Public

CONSIDER  
AUDIENCE

## STEP 5

### Persuade with Data

- Focus on a simple message that resonates
- Use emotion
- Think about your audience



CREATE  
STORY

## STEP 6

### THE END



VIOLÀ!

Processed data is information,  
processed information is  
knowledge, processed  
knowledge is wisdom.  
*Ankala Subbarao*

# Writing a Data Story Using Traditional Storytelling Methods

Conflict is always building



## BEGINNING

**Introduce** the situation:

- The movie Jaws taught us to fear the fin

**Reveal** the objective:

- Sharks have a mean demeanor, do their actions correlate to their appearance?

**Hook** the listener:

- Introduce @MaryLeeShark (shark with Twitter account)

## DEVELOPMENT

Announce the **conflict**

- Beachgoers are terrified of the word “Shark”

**Create** tension

- Present the data: shark attacks are rarely fatal
- Great white sharks are most likely to attack humans

**Work** toward resolution

@MaryLeeShark enjoys socializing with her shark friends, she’s not interested in humans

## RESOLUTION

**Resolve** the Conflict

- Sharks vs lightning fatalities
- Sharks prefer fish to humans
- Avoid situations that increase your risk of having a shark encounter

Provide the **answer**

- Jaws was fictional, @MaryLeeShark is real
- Jaws attacked, @MaryLeeShark has not

**Tie** up loose ends

- The data doesn’t support the fear

# MY DATA STORY: IS JAWS JUST MISUNDERSTOOD?

Let's face it, Hollywood has given sharks a bad rap, portraying them as villains and creating a culture that fears the fin through the 1977 movie Jaws. [OCEARCH](#), a non-profit organization that studies great white sharks has generated outstanding amounts of data through shark tagging.

One of OCEARCH's tagged sharks, @MaryLeeShark, a 50-year-old great white shark with a Twitter account was seen foraging much of the Atlantic over the years, but never too close to the coast or where people would usually be about swimming. The following figure shows her path around the Atlantic. Each dot represents when she was closest enough to the surface to ping the satellite. There are two paths - orange and gold. More about that in a second.



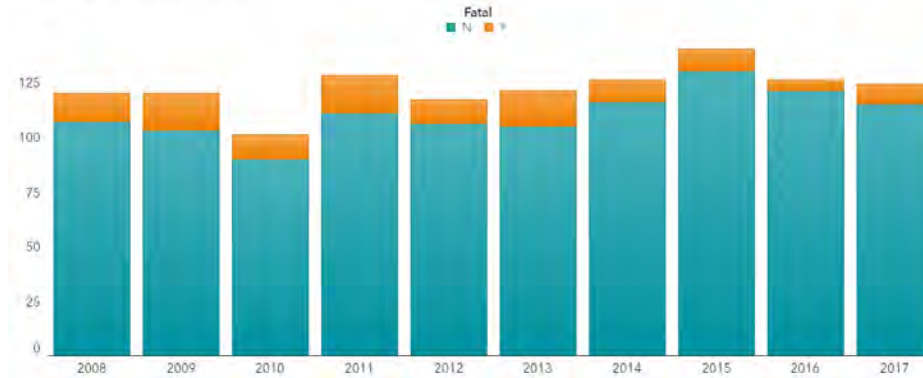
In fact, her only known human interaction was with the OCEARCH team when she was tagged (see above). Like humans, sharks like to socialize – not with humans, but with other sharks. Back in 2015, Mary Lee was pinged swimming off North Carolina with her friend Katherine. (This is where the gold and orange paths come in! One is Mary Lee and the other is Katherine.) Mary Lee was later seen up north near Cape Cod with other sharks of similar species presumably hunting seals. You may be surprised to know that our interest in them outweighs their interest in us.

# DATA PRESENTATION

There are approximately 110 shark attacks worldwide each year and only a few are fatal.

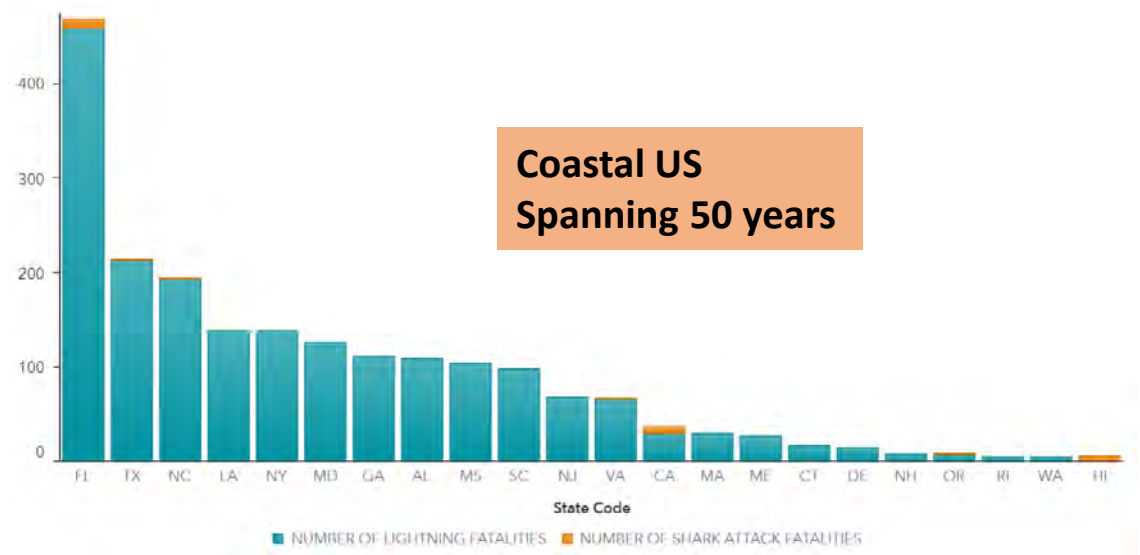
## Reviewing Shark Incidents

Total Shark Attacks (2008-2017)



In fact, the odds of getting attacked and killed by a shark are so slim that you are more likely to die from heart disease, the flu, biking or lightning.

## Are Sharks Really the Villain?

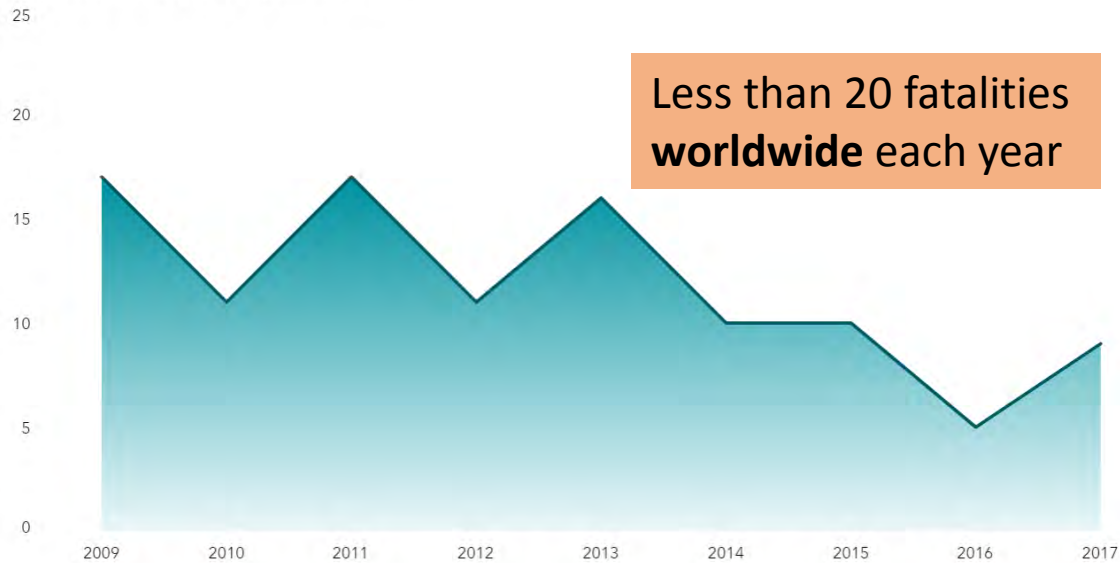


## DATA PRESENTATION

### Sharks Prefer Fish to Humans

While shark attacks have slightly increased over the years, fatality rates have declined. Researchers believe this could be due to better responses to beach safety practices or increased public awareness.

Total Shark Attack Fatalities (2008-2017)



The white shark, also commonly referred to as the great white shark, bull and tiger sharks rank highest for attacks on humans. Generally, sharks do not eat humans. Great whites typically feed on marine animals. Attacks and fatalities are highly unusual and typically occur when sharks are confused or curious.

## RECOMMENDATIONS

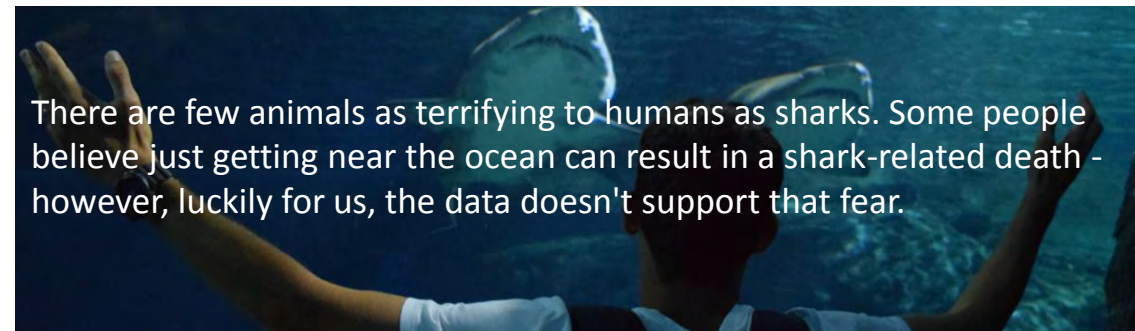
### Avoiding Shark Encounters

While the risks are extremely low for potential shark attacks, spending any amount of time in the ocean makes your risk slightly higher as you are playing where they live. There are things you can do to avoid a potential shark attack:

- Avoid wearing shiny jewelry or swimwear as these items can be misconstrued for fish scales
- Don't go in the water if you are bleeding
- Stay in groups. Sharks are more likely to attack a person singularly
- Avoid swimming at night – you can't see them, but they can certainly see you

### What We Know

Jaws was a fictional great white shark but @MaryLeeShark is real. She became internet famous after being tagged by OCEARCH in September 2012. She has since gone missing. Her last ping was June 2017 and researchers believe the battery on her tracking device has run its course. They believe, now she is at least 20 feet weighing over 4000 pounds. If OCEARCH can't find her, you probably won't either - so #dontfearthefin!





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Visit the Zencos blog for more data storytelling tips

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