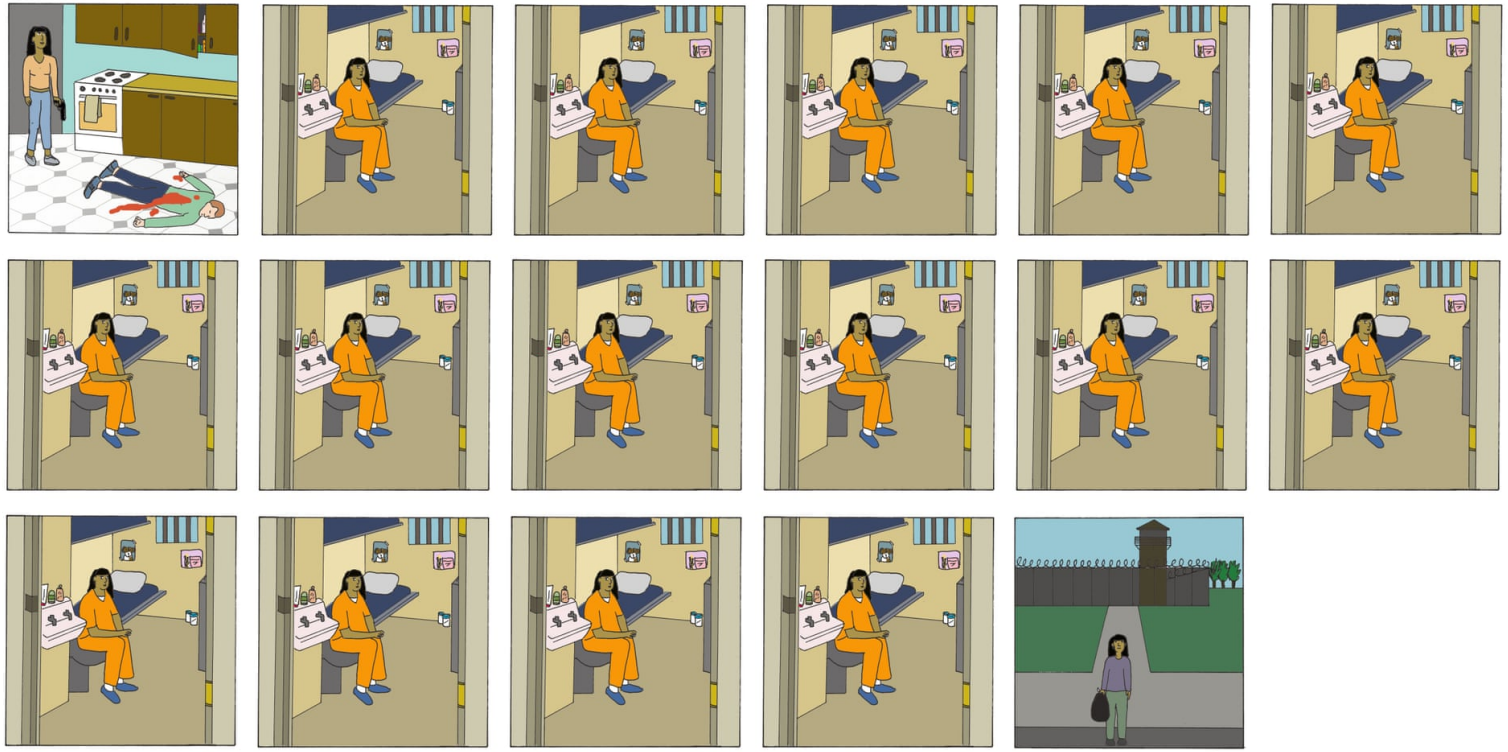
Context: who, what, when, how?

- What do you want to achieve with the visual communication?
- How’s the communication going to be consumed?

Average Sentences

WOMEN WHO KILL MALE PARTNERS:



MEN WHO KILL FEMALE PARTNERS:

All communication (not just visual) has same components:

- Who
- What
- When
- How

ALWAYS need to be asked

Who: Audience

Pause this video, take 5 minutes to think and write down:

Name 5 potential audiences for data viz

Give one consideration you'd need to make if that's who you're aiming for

Some audience considerations:

- Children: bright colours, one very simple message, no numbers
- Scientists: precise numbers, can be complex, colours for sending a message rather than zazzing it up
- Politicians: simple visualization with clear take-away message, no superfluous detail
- Your employer: clearly highlighted message, but perhaps some extra evidence and exploration to show deep thought behind the message
- University-educated general public: reliance on familiarity with common visualization types, superfluous information only to capture interest or be memorable

What: action

What do you need your *audience* to do after seeing your viz?

Some people feel uncomfortable, particularly in scientific visualisations – they want to show everything, and let the reader choose

But you have seen the data – you are the expert

What: action

Accept
Agree
Begin
Believe
Change
Collaborate
Create
Defend
Desire
Differentiate
Do
Emphathize
Encourage
Engage
Establish
Examine
Facilitate
Know
Learn
Like
Persuade
Plan
Promote
Pursue
Receive
Remember
Report
Secure
Support
Simplify
Start
Try
Understand
Validate

Your boss

Accept
Agree
Begin
Believe
Change
Collaborate
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Encourage
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Accept
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Secure
Support
Simplify
Start
Try
Understand
Validate

What: action

Often in STEM data viz the action is ‘know’ or ‘understand’ – I want you to **know how much a house costs**, or **understand that climate change is causing species extinctions**

The ‘what’ helps you decide what partitions of your data to use – and what to throw out

What: action

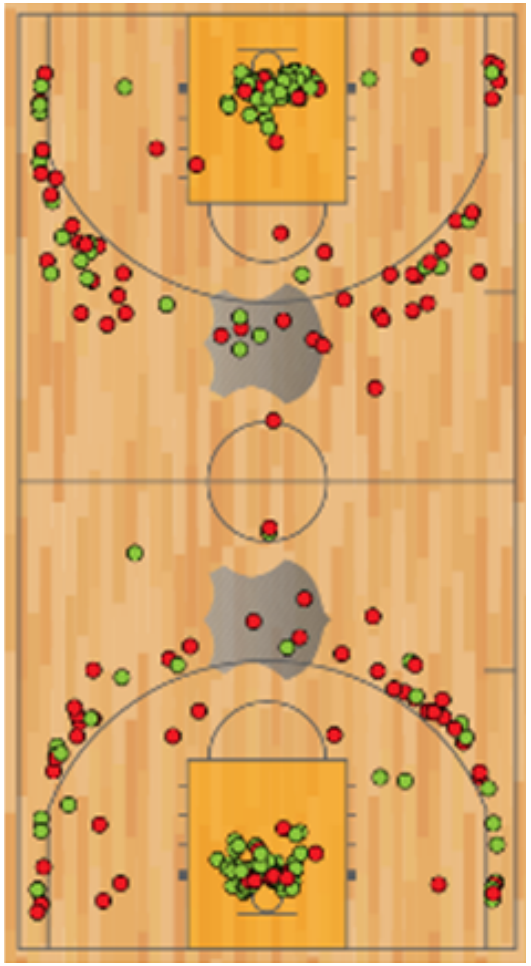
Goal of this data viz (the ‘what’):

I want the audience to **remember** that *Kevin Durant loses his shoes more than any other player in NBA history*

Only once you have defined the ’what’ can you think about how to show it

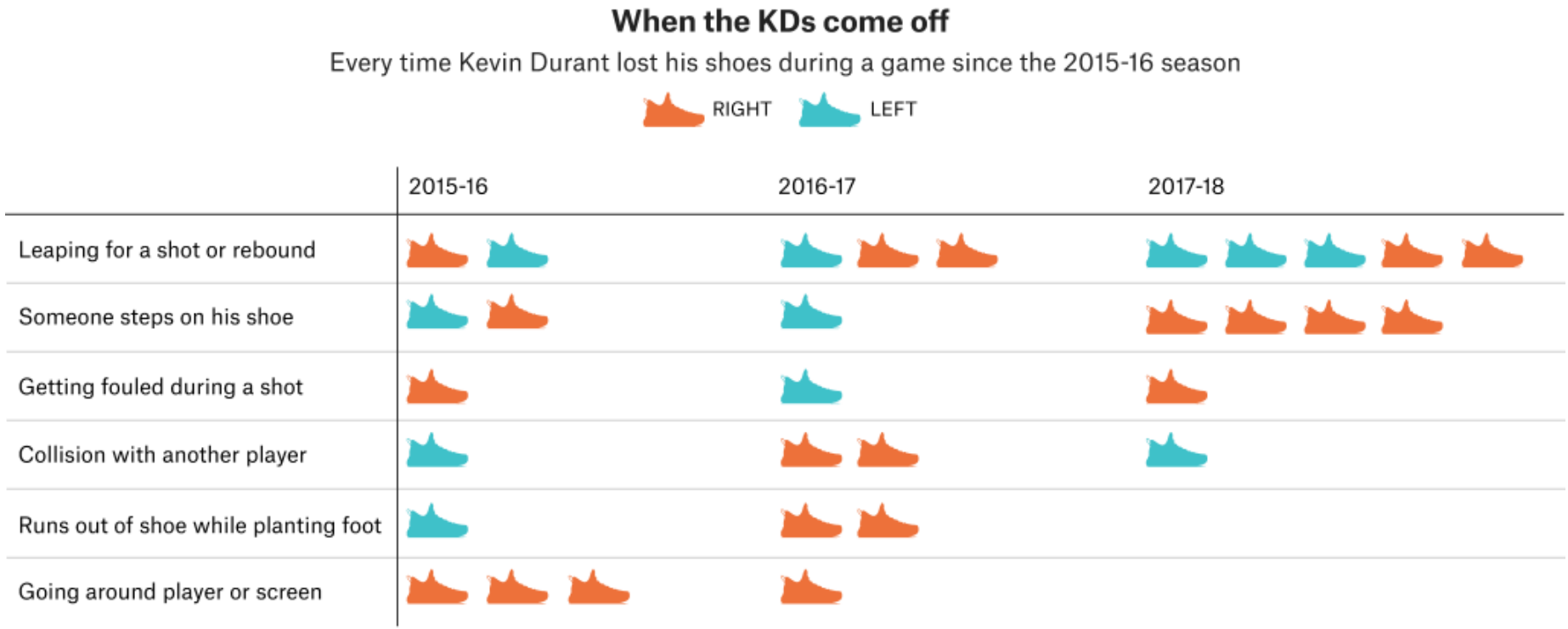
NBA data

- Scores per team at each time
- Scores per player at each time
- Time since last break (timeout or half time)
- Time since player last touched ball
- Time since team lost ball
- Time player has spent on court
- Time player has spent in each part of court
- Actions of each player at each time
- Relative positions of each player at each time
- How many shirts each player is wearing
- How many shoes each player is wearing



NBA data

- Who is our audience?
- How might we represent the data to show our point?
- Remember our goal is not to for the audience to learn, but to remember: Will that be MEMORABLE to them?



What is the take-home message?

When: when can you reveal new information?

Static: everything is revealed at once

Linear: you get to choose what order things are revealed

Dynamic/interactive: order is always different

How: what should I do with the data

- Which parameters of the dataset are related to the action?
- What exploratory visualisations are superfluous to the communication?