STORYTELLING

1

intro

why focus on storytelling?

Measuring the right things and telling our story well can help us reach our most audacious goals.
“People don’t buy what you do, they buy why you do it.”

“We’d achieve more if we chased our dreams instead of our competition.”

“Every organization on the planet knows WHAT they do.

These are the products they sell and the services they offer.”
start with why examples - what

University of Washington

Undergraduate
Sports
Online
Medicine
University
Library
Teach
State
Public
Hospital
Classes
Graduate
Research

start with why

● All gifts to UW under $25K
● Solicitation letters, emails, and phone calls
● Husky Giving Day (April 2)
● Leadership-level fundraising ($2,000-$25,000)
● Student philanthropy

ANNUAL PHILANTHROPY

“Some organizations know HOW they do it.

These are they things that make them special or set them apart from the competition”
Husky Promise
- Guarantees full tuition and standard fees will be covered by grant or scholarship support for eligible students

Research Excellence
- Top public university in the US for federal research funding

ANNUAL PHILANTHROPY

University of Washington
- Integrated analytics
- Predictive models
- Marketing automation
- Segmentation
- Engagement scores
- Personalization
- Centralization

“Very few organizations know WHY they do what they do.
Why is not about making money. That’s a result.
It is a purpose, cause or belief. It’s the very reason your organization exists.”
To change the world

To inspire a lifetime of giving
(through UW to change the world)

To keep the UW community working
(so they can change the world)
Change direction - start with **WHY**

NOTES

NOTES
A Thousand Words and a Picture: Storytelling with Data

ACTIVITY 1: Start With Why

Time: 5 minutes

Instructions:
- Find a partner
- Work by yourself to answer the question below
- Share with a partner

Activity 1: Start With Why

1. Write a simple sentence explaining a “Why” for your institution or unit.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
Start Smart with Data: 10 Steps for Success

“*If you do not have a clear direction for which to aim, there is nothing to measure.*”

- Cara Giacomini


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**Understand the strategy**

What is the short- and long-term strategy for your unit, service, or area of work?

What are the primary business goals (not technology goals?)
To change the world

**Strategy** - To be one of the top universities in the world when measured by **impact**

"At the University of Washington, we measure our success in terms of the positive impact created by our community of scholars, educators, and alumni."

- UW President Ana Mari Cauce

To inspire a lifetime of giving

**Strategy** - We focus on renewing as many donors as possible over multiple years, as well as expanding our pipeline by adding and reactivating donors.
Define what success looks like

How will you know if your strategy is successful?
What would failure look like?
What small steps indicate movement in the right direction?

Example - define success

<table>
<thead>
<tr>
<th>FY19 Metrics vs. FY18</th>
<th>Donor Renewal</th>
<th>Donor Coverage</th>
<th>AP Donors</th>
<th>AP Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>61.23%</td>
<td>100.64%</td>
<td>94.11K</td>
<td>$67.27M</td>
</tr>
<tr>
<td>▲</td>
<td>▲1.75%</td>
<td>▲11.05%</td>
<td>▲11.07%</td>
<td>▲13.9%</td>
</tr>
<tr>
<td>New Donor Renewal</td>
<td>28.53%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>▲</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>▲</td>
<td>▲</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reality check

Introducing metrics that don’t tell a meaningful story can inadvertently motivate people to ignore data
align data with strategy

example - using the wrong metric

Who will review and receive the data?
What actions are they empowered to take based on the results?
Do they agree with the strategy?

Identify your audience

start smart

align data with strategy

Reality check

If you do not have an audience empowered (and willing) to act on the data you generate, you need to spend more time building supportive relationships before you introduce metrics. No amount of data will convert an active skeptic.

Every data story needs a champion.
start with **why**

align data and strategy

consider elements of a good story

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pitfall #1 - not telling a cohesive story (fictional example)

<table>
<thead>
<tr>
<th>Visits to Husky Fund Website</th>
<th>Husky Fund Donations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Q2 - Husky Fund Email**
  - Delivered: 99%
  - Opened: 25%
  - Clicked: 3%
  - Unsubscribed: 1%

- **Engagement Score**: 43

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pitfall #1 what went wrong

- Numbers without context
- Not connecting data to a strategic goal or business need
- All numbers, no people
- Inconsistent metric definitions and measurement periods
- No clear action
- Audience left feeling “So What?”
What are you solving?

Balancing tensions

Who is this story about?

Who benefits?

What will set the scene?

Give context

What is going on?

What caused events?

What did we learn?

Main takeaway from data

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Elements of a Good Story

<table>
<thead>
<tr>
<th>CONFLICT</th>
<th>CHARACTER</th>
<th>SETTING</th>
<th>PLOT</th>
<th>THEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you solving?</td>
<td>Who is this story about?</td>
<td>What will set the scene?</td>
<td>What is going on?</td>
<td>What did we learn?</td>
</tr>
<tr>
<td>Balancing tensions</td>
<td>Who benefits?</td>
<td>Give context</td>
<td>What caused events?</td>
<td>Main takeaway from data</td>
</tr>
</tbody>
</table>

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conflict
what are we solving?

What is our strategic goal or business need?

- Boost reputation of UW
- Encourage behavior—student admissions, advocacy, event attendance, donations

Possible Metrics

- Views of (specific) Web pages
- Interactions with social media posts
- Sentiment analysis of posts/comments
- Participation in online events
- Donations via online platform

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character
who is this story about?

Who benefits from UW digital media?

- Faculty, Staff, Students
- Seattle community, UW units, organizations
- Specific populations tied to strategic goals

Possible Metrics

- Who visits/engages (when identity is known)?
- What characteristics do we know (when identity is unknown)—region, other sites visited, level of engagement?
- Personas—what distinct groups can we identify?
What context do we need to understand the data?
- Definitions of metrics (level setting—everyone speaking same language)
- Baselines and trends (What is high? What is low?)
- What would success look like?

Possible Metrics
- How many views do we have per day, week, year?
- How many/what level of increase in views, registrations, shares, comments, etc. indicate we are moving in the direction we desire?
- How does this persona/segment typically interact with our content?

How is the story unfolding now?
- Latest numbers
- Timely information
- Significant recent changes

Possible Metrics
- Daily or weekly counts
- Recent activity
- Comparisons to same time period last week/year
- Comparisons to similar content

What should we do with this information?
- Find actionable insights
- Tailor future content, identify new audiences, cultivate channels
- Assess effectiveness of our strategy
- Know if we met our goals

Possible Metrics
- Key Performance Indicators—identified metrics most aligned with success and monitor them going forward
- Create thresholds that automatically trigger notifications/events/actions
pitfall #1 - not telling a cohesive story (fictional example)

Q2 - Husky Fund Email

Delivered 99%
Opened 25%
Clicked 3%
Unsubscribed 1%

Engagement Score 43

Donations to Husky Fund in October 2019 (Fictional Example)

1,026 Donors $42,575

pitfall #2 - pitching your story to the wrong audience
Audience - CIO with little survey experience

- Audience confused by too much detail
- No clear story
- Not connecting data to a strategic goal or business need
- No clear action

Pitfall #2: What went wrong

- Audience confused by too much detail
- No clear story
- Not connecting data to a strategic goal or business need
- No clear action

Who is listening to our story?

- CIO
- Advisory Boards
- University Leadership
- Faculty
- Staff
- Students
- Alumni
- Community
- Data Analysts
Consider the following:

- What part of our story is most important to our audience?
- How familiar is our audience with the subject of your story?
- How familiar is our audience with the data and the methods used to collect them?
- How will our audience use the data?

Focus on the main takeaway

Less is more; be concise

Use non-technical language

Simplify visuals

Aim to spark discussion and action

- Your audience should walk away with ideas on how to respond to the information shared

### Original Story

![Graph: Faculty Reported Policies on Device Use Compared to Student Perception of Faculty Policies on Device Use (by Percentage Difference Reported)]

Note: Data have been modified for this example
Improved Story

Note: Excerpt from actual EDUCAUSE Infographic

What are you solving?

Who is this story about?

What will set the scene?

What is going on?

What did we learn?

Takeaways - Storytelling

AUDIENCE

Who is listening to our story? What do they need to know?

NOTES
A Thousand Words and a Picture: Storytelling with Data

ACTIVITY 2: Case Study

Time: 20 minutes

Instructions:
- Work in teams of 3-4 people (you will be in these teams for the next two activities as well)
- Review the scenario and answer the questions below. This scenario will also be used for additional activities

Scenario
You just celebrated your five year anniversary as CIO at Common College. As you reflect on all of the great achievements you and your team have made over the past five years you get an email from a vocal leader of the student government. The email summarizes the focus of discussion from a recent town hall meeting. The meeting was held to discuss campus IT and it is now clear that the general campus perception is that IT is a joke at Common College. During the meeting students listed the issues they have with IT:
- WiFi doesn’t work and is unreliable
- The IT fee has been increased and no one knows what this fee supports
- The LMS is changing AGAIN

The town hall meeting has been generating buzz on campus. The student leader has met with the president of Common College and a vocal group of faculty members are now jumping on the bandwagon - they are adding “poor IT in the classroom” to the list of grievances. New leaders on the board and throughout campus are hearing complaints from folks coming out of the woodwork. You feel like you have made great strides the past five years, but it dawns on you the story hasn’t been told - you assumed everybody felt the improvements as you did.

Your Challenge
Use the elements of good storytelling to develop a message to shift perception for a specific campus audience. Ideally, your message will improve your reputation and increase morale.
Activity 2: Case Study

1. Select your audience
   a. College President
   b. IT Staff
   c. Students
   d. Faculty
   e. Fiscal Managers

2. In one sentence, define the main problem this audience is trying to solve.
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________

3. Identify 1-2 IT services you provide that directly relate to this problem (use your imagination to think of services Common College likely provides).
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________

4. In 1-2 sentences, define WHY your IT department provides these IT services. Not what they are, or how they are special--but why you provide them.
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________
5. Jot down some ideas on how to approach this problem:

a. What potential areas of intersection do you see between why you provide these services and the reasons your audience is unsatisfied?

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
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b. How do these points of connection inform how you could speak to this audience?

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
<table>
<thead>
<tr>
<th>STORYTELLING</th>
<th>CHOOSING DATA</th>
<th>DISPLAY OPTIONS</th>
<th>DELIVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>What's the story behind the data</td>
<td>What's the data</td>
<td>How to visually communicate your story</td>
<td>Bringing it all together</td>
</tr>
</tbody>
</table>

**CHOOSING DATA**

- Two important steps
choosing data
creating a data pantry

More

Preparedness

Less

Leah landing in Denver w/out checking the weather
Mom purse
Doomsday Preppers

You with some data

You will learn data

preparation

Data

Things to consider

- Governance issues
- Collaborating with data owners and stakeholders
- Aligning data systems

creating a data pantry
where to find good internal data

Student Information System
LMS
IT Service Desk Management System
creating a data pantry
where to find good external data

- Industry Data
  - Gartner

- Institutional Data
  - IPEDS
  - National Community College Benchmarking Project
  - CUPA-HR Salary and Healthcare survey

- IT Data
  - EDUCAUSE Core Data Service (CDS)
  - EDUCAUSE Technology Research in the Academic Community (ETRAC)
  - TechQual+
  - Measuring Higher Education Library & IT Services (MISO)
  - IT (service desk)

- IT and HE Trends
  - EDUCAUSE Top 10 IT Issues, Technologies, and Trends
  - EDUCAUSE Horizon Report
  - AGB Top Strategic Issues for Boards

creating a data pantry
the EDUCAUSE Core Data Service (CDS)

16 years of research
750+ participating institutions annually
900+ data users
370+ reports

creating a data pantry
the EDUCAUSE Core Data Service (CDS)
creating a data pantry
EDUCAUSE Technology Research in the Academic Community

dates to remember

choosing data
selecting the right data
### Choosing Data

#### Considering Your Audience

**CONFLICT**
- What are you solving?

**CHARACTER**
- Who is this story about?

**SETTING**
- What will set the scene?

**PLOT**
- What is going on?

**THEME**
- What did we learn?

#### Audience

- Who is listening to our story? What do they need to know?

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#### Choosing Data

<table>
<thead>
<tr>
<th>Data novice</th>
<th>Data savvy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big picture</td>
<td>Consider stories and anecdotes</td>
</tr>
<tr>
<td>Detail oriented</td>
<td>Anticipate questions</td>
</tr>
</tbody>
</table>

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What are you solving?  | CONFLICT
Who is this story about? | CHARACTER
What will set the scene? | SETTING
What is going on? | PLOT
What did we learn? | THEME

Who is listening to our story? What do they need to know?  | AUDIENCE

<table>
<thead>
<tr>
<th>choosing data</th>
<th>selecting the right data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATA</strong></td>
<td></td>
</tr>
<tr>
<td>● What is a student?</td>
<td></td>
</tr>
<tr>
<td>● What is a service?</td>
<td></td>
</tr>
<tr>
<td>● What is a disaster?</td>
<td></td>
</tr>
<tr>
<td>● What is an incident?</td>
<td></td>
</tr>
</tbody>
</table>
choosing data
creating meaningful metrics

- Competitors
- Aspirants
- Pre-defined peers
- Bedfellows
- Other industries

choosing data
types of peers

Your Institutional Research office
- Knows whether there are established comparison groups for your institution

National Center for Education Statistics (NCES)
- College Navigator (http://nces.ed.gov/collegenavigator/) can help you to identify similar institutions using pre-defined categories
- IPEDS Data Center (https://nces.ed.gov/ipeds/datacenter/)

Carnegie Classification of Institutions of Higher Education
- http://carnegieclassifications.iu.edu/
choosing data
IT peers

What are you solving?

Who is this story about?

What will set the scene?

What is going on?

What did we learn?

Who is listening to our story? What do they need to know?

Adding data elements that set the tone
- EDUCAUSE Top 10 IT Issues, Technologies, and Trends
- EDUCAUSE Horizon Report
- AGB Top Strategic Issues for Boards
Takeaways - Choosing Data

1. Use only the data you need to support your story.
2. Be the expert on your data.
3. Consider your audience's familiarity with data.
4. Use clear, simple metrics.

NOTES
A Thousand Words and a Picture: Storytelling with Data

ACTIVITY 3: Choosing Data

Time: 20 minutes

Instructions:
- Work in your team from Activity 2 (you will be in this team for the next activity as well)
- Using your results from Activity 2 and the supporting data included here, answer the questions below.

Supporting Data

Pages 3 through 11 of this activity have five years worth of data for the following metrics:
1. LMS accessibility comparison
2. List of projects completed in the last 5 years
3. Support for student success initiatives
4. Number and resolution time for tickets
5. WiFi & network stats - demand vs. access points.
6. Costs of standard software licenses
7. Distribution of how student IT fee is spent
8. Funding over time
9. FTE and $ spent per institutional FTE

Activity 3: Choosing Data

1. Identify 2-3 compelling data points to support your story.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

2. Identify any additional data you’d like to include to tell the story.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
3. Identify 2-3 key takeaways from your data.

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

4. Choose a quadrant for your chosen audience.

5. Considering your audience’s familiarity with data, how will you tell your story?

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________

6. Write a headline for your data story.

___________________________________________________________________________
## Supporting Data

### LMS Accessibility Comparison

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Old LMS</th>
<th>New LMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-alternatives for non-text content</td>
<td>Full Functionality</td>
<td>Full Functionality</td>
</tr>
<tr>
<td>All content accessible via keyboard</td>
<td>Limited Functionality</td>
<td>Improved Functionality</td>
</tr>
<tr>
<td>Content does not flash (to avoid triggering seizures)</td>
<td>N/A</td>
<td>Full Functionality</td>
</tr>
<tr>
<td>Content appears and functions in predictable ways</td>
<td>Limited Functionality</td>
<td>Improved Functionality</td>
</tr>
<tr>
<td>Closed captioning</td>
<td>Limited Functionality (fee per use)</td>
<td>Full Functionality</td>
</tr>
<tr>
<td>Compatible with assistive technologies</td>
<td>Limited Functionality</td>
<td>Full Functionality</td>
</tr>
<tr>
<td>Assistance to help correct mistakes during input</td>
<td>Limited Functionality</td>
<td>Full Functionality</td>
</tr>
</tbody>
</table>
List of Key Projects Completed Over Last 5 Years

- LMS transition--product selection
- Campus policy on surveillance and drone use
- Computing lab computer and printer refresh
- Campus mobile app update (Version 5.0)
- Wi-fi system upgrade for south campus
- Makerspace in library (sponsored by industry partner)
- Active learning classroom in new Engineering building
- Student success initiative--advising and degree planning modules
- Campus cell tower expansion (partnership with cell vendors)
- Campus software license renewal (new contract and payment plan)
- Phishing education program
- Duo implementation (dual factor authentication)
- HR system update for direct deposit
- Data center expansion
- Network monitoring dashboard
- Amazon Echo pilot
Student Success – Staff Hours

114
2016

423
2017

1102
2018
<table>
<thead>
<tr>
<th>Campuswide Wireless Stats</th>
<th>Fall 2017</th>
<th>Fall 2016</th>
<th>Fall 2015</th>
<th>Fall 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent Wireless Network Devices - Peak</td>
<td>15,363</td>
<td>15,381</td>
<td>14,059</td>
<td>11,600</td>
</tr>
<tr>
<td>Average Unique Wireless Devices Per Day</td>
<td>22,146</td>
<td>22,172</td>
<td>20,266</td>
<td>16,722</td>
</tr>
<tr>
<td>Wireless Access Points - Main Campus - 802.11n</td>
<td>1,139</td>
<td>1,100</td>
<td>1,039</td>
<td>1,023</td>
</tr>
<tr>
<td>Wireless Access Points - Main Campus - 802.11ac</td>
<td>346</td>
<td>103</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>Wireless Access Points - Residence Halls - 802.11n</td>
<td>784</td>
<td>783</td>
<td>784</td>
<td>574</td>
</tr>
<tr>
<td>Top Software costs for Campus</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>------------------------------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>511,000 Ellucian/Banner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>289,000 D2L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>247,000 Oracle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>162,000 Hyland</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>122,000 Microsoft Desktop Bundle</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>88,000 CommVault</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>85,000 Atlassian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56,000 Blackboard Collaborate</td>
<td></td>
<td></td>
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<tr>
<td>55,000 Advantel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53,000 PeopleAdmin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000 MuleSoft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45,000 Talisma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Tech Fee</td>
<td>FY14</td>
<td>FY15</td>
<td>FY16</td>
<td>FY17</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Fee per quarter</td>
<td>30.00</td>
<td>35.00</td>
<td>40.00</td>
<td>45.00</td>
</tr>
<tr>
<td>Average Student Population</td>
<td>17,300</td>
<td>17,200</td>
<td>17,000</td>
<td>16,500</td>
</tr>
<tr>
<td>Total Fee</td>
<td>1,557,000</td>
<td>1,806,000</td>
<td>2,040,000</td>
<td>2,227,500</td>
</tr>
<tr>
<td>Fee Usage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WiFi on campus</td>
<td>165,000</td>
<td>178,250</td>
<td>193,750</td>
<td>208,000</td>
</tr>
<tr>
<td>Instructional Design</td>
<td>200,000</td>
<td>220,000</td>
<td>300,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Student Success/Degree planning</td>
<td>118,750</td>
<td>157,500</td>
<td>247,500</td>
<td>302,500</td>
</tr>
<tr>
<td>Duo and Direct Deposit</td>
<td>-</td>
<td>100,000</td>
<td>150,000</td>
<td>175,000</td>
</tr>
<tr>
<td>Refresh lab computers</td>
<td>256,300</td>
<td>289,000</td>
<td>323,600</td>
<td>293,300</td>
</tr>
<tr>
<td>Printing in labs</td>
<td>252,260</td>
<td>266,777</td>
<td>272,029</td>
<td>275,042</td>
</tr>
<tr>
<td>New Amazon Echo pilot</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100,000</td>
</tr>
<tr>
<td>Subsidize of Student Software Costs</td>
<td>100,000</td>
<td>105,000</td>
<td>110,250</td>
<td>115,763</td>
</tr>
<tr>
<td>Total Tech Fee Funds Remaining</td>
<td>464,690</td>
<td>489,473</td>
<td>442,871</td>
<td>397,895</td>
</tr>
<tr>
<td></td>
<td>FY12</td>
<td>FY13</td>
<td>FY14</td>
<td>FY15</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Total Operating Budget</td>
<td>$13,394,337</td>
<td>$13,162,941</td>
<td>$14,875,899</td>
<td>$15,482,660</td>
</tr>
<tr>
<td>Personnel</td>
<td>$8,777,489</td>
<td>$8,780,214</td>
<td>$10,570,770</td>
<td>$11,094,892</td>
</tr>
<tr>
<td>Services and Supplies - S&amp;S</td>
<td>$4,616,848</td>
<td>$4,382,727</td>
<td>$4,305,129</td>
<td>$4,387,768</td>
</tr>
<tr>
<td>S&amp;S Contractual Oblig</td>
<td>$3,373,190</td>
<td>$3,391,866</td>
<td>$2,824,393</td>
<td>$2,907,638</td>
</tr>
<tr>
<td>Equipment Replacement</td>
<td>$2,298,742</td>
<td>$990,861</td>
<td>$1,480,736</td>
<td>$1,480,130</td>
</tr>
</tbody>
</table>
Funding over time:
Design is *photoshop* *tableau* “making things pretty”

Design is *communication*

**Display**

**PERCEPTION**
- How people perceive visual information

**DESIGN ELEMENTS**
- How to use key design elements for visual communication

**APPLICATIONS**
- How to apply these learnings to common graphs
Display

PERCEPTION
How people perceive visual information

DESIGN ELEMENTS
How to use key design elements for visual communication

APPLICATIONS
How to apply these learnings to common graphs

Use design to guide the audience’s attention.

The whole is different from the sum of its parts

Max Wertheimer
display

gestalt - closure

Source: https://www.fusioncharts.com/blog/how-to-use-the-gestalt-principles-for-visual-storytelling-podv/
Takeaway

**PERCEPTION**

Our brains view and organize things as "wholes".

---

**Display**

<table>
<thead>
<tr>
<th>PERCEPTION</th>
<th>DESIGN ELEMENTS</th>
<th>APPLICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>How people perceive visual information</td>
<td>How to use key design elements for visual communication</td>
<td>How to apply these learnings to common graphs</td>
</tr>
</tbody>
</table>

---

Effective visual communication = using **design elements** to help your audience see the story.
Quick tips:
- sans serif for graphs
- use “generic” fonts for files that will be shared for editing
- save playful fonts for details
- special fonts → export to PDF (or use screenshots)
Takeaway

Simple tweaks to key design elements bring your story to life

Display

PERCEPTION

How people perceive visual information

DESIGN ELEMENTS

How to use key design elements for visual communication

APPLICATIONS

How to apply these learnings to common graphs

What's the story here?
Example: are we advocating for more technology in classrooms?
The Widening Gap

DEMAND
Increasing complexity of IT infrastructure

BUDGET
More requests chasing fewer resources

More systems
More data
More technology

Increasing IT demand

More requests chasing fewer resources

Ability to deliver within current budget

Experiences with Classroom Technology

Overall satisfaction
Wi-Fi access
Computer projection
Ease of use of technology
Reliability of equipment
Computer in classroom
display tools

- Excel
- PowerPoint
- Google Charts
- Infogram
- Piktochart
- Statpedia

APPLICATIONS

Our brains view and organize things as “wholes”.

PERCEPTION

Simple tweaks to key design elements bring your story to life.

DESIGN ELEMENTS

Improve simple graphs: eliminate distraction, clarify your point.

APPLICATIONS
A Thousand Words and a Picture: Storytelling with Data

ACTIVITY 4: Design

Time: 30 minutes

Instructions:
- Work in your team from Activities 2 & 3.
- Use items 1-2 and 6 from Activity 3.
- Select a tool you would like to use to create a visualization.
  - Excel/Google Sheets: If already available on your computer
  - Infogram: sign up for free at https://infogram.com/, and follow the tips at the end of this activity sheet
  - Use paper and crayons (ask facilitators for supplies)

Try to just pick a tool and go with it; the goal is to focus on your visualization.

Activity 4: Design

1. Select one or more of the data points you identified in Question 1, Activity 3 that you would like to visualize (Note: all data points selected will be included in a single chart).

2. Since the focus of this exercise is on design; you can also consider your desired additional data in Question 2, Activity 3 and “create” supplementary data to fill in gaps, as needed.

Don’t spend too much time trying to come up with the perfect data to build your case; focus primarily on the data in Question 1, Activity 3.

3. Using the laptop of one member of the group and the tool you selected (if Excel, Google Sheets, or Infogram) create one chart to accompany the story you created in Activity 1. Alternately, sketch out the chart you are creating using paper and crayons. If you use Infogram, consider the tips on the next page.

4. Consider the following as you create your chart:
   a. What is the most important part of your story?
   b. What does your audience need to know?
   c. What is the most compelling data point for your audience?
   d. What design elements will help you best communicate your story to your audience?

5. Use the headline from Question 6, Activity 2 as your title (modify as needed).
Tips for Using Infogram

- Go to Infogram (https://infogram.com/) and login using Google or create an account
- Select **Slides** as your **Project**
- Select **Blank Template** - You will need to select the **Public** option on the pop-up screen to continue
- Select the **chart** icon on the left to select a starting chart template
- Once you have selected a chart type you like, click on **Insert** to add it to your blank slide.
- Click on the inserted chart to edit it. On the right hand side you will see the following options:

  ![Edit data and Settings](image)

  - **Edit data** will let you modify the data included in the chart
  - **Settings** will let you modify colors, style, etc
- You can use additional elements from the toolbar on the left (where you found the **chart** icon) to add text, icons, and images
- Explore and have fun!
What's the story behind the data
What's the data
How to visually communicate your story
Bringing it all together

DELIVERY

content
four sections
STORYTELLING
CHOOSING DATA
DISPLAY OPTIONS
DELIVERY

1
What's the story behind the data
2
What's the data
3
How to visually communicate your story
4
Bringing it all together
delivery
know the environment (audience/venue)

study who you are presenting to
Your audience: ____________.

Once upon a time, there was ________________.
Every day, ________________________________.
One day, ________________________________.
Because of that, __________________________.
Because of that, __________________________.
Until finally, ______________________________.
If I had more time, I would have written a shorter letter.

Blaise Pascal

Cognitive Load
“The goal is to free limited working memory from irrelevant mental effort.”

Ruth Clark

What’s the one big idea when they tell their spouse that night?

Daniel Pink

Make the talk your own. Play to your strengths and give a talk that is truly authentic to you.

Chris Anderson
Practice with someone different than yourself. Listen.

Get the audience engaged right off the bat.

Really know the content. Anticipate tough questions. Create answer notes.
“Women are less confident and it impacts them professionally; people often hired/promoted based on confidence.”

The Atlantic

**delivery**

**confidence**

**tips on nerves**

- Practice
- Frequency
- Power Pose
- Start with audience engagement

**breathe**
Just got hit with a case of the nerves...
delivery
dress the part

Prepare for mic
(watch out for accessories)

Wear something
that allows you
to move

owning the room

You never get a second
chance to make a first
impression
(Will Rogers)

Prepare to enter
the room

How you walk
into a room

Tell a compelling
story for your
audience

Use visual
elements
strategically to
communicate
your idea

Use the best
metrics for your
audience

Bring it all
together

Takeaways

STORYTELLING
1 Tell a compelling story for your audience

DISPLAY
2 Use visual elements strategically to communicate your idea

CHOOSING DATA
3 Use the best metrics for your audience

DELIVERY
4 Bring it all together
A Thousand Words and a Picture: Storytelling with Data

ACTIVITY 5: Delivery

Time: 30 minutes

Instructions:
- Work by yourself
- Identify an issue you could make a quick pitch about. It could either be the Activity/Case Study you worked on today or something else you are familiar with or in the middle of back home
- Spend the next 15 minutes sketching out your 1-2 minute pitch
- For the second half, we will practice with a partner in the room

Helpful elevator pitch tips to help you prepare yours:

- Identify your audience - president, provost, VP, CIO, or another leader
- Identify your goal - what do you want to accomplish
- Explain what you do - if you don’t know each other
- Communicate your case - very limited time
- Engage with a question - makes them sum up and make a decision
- Put it all together
- Practice
A Thousand Words and a Picture: Storytelling with Data

RESOURCES

Storytelling

Choosing Data
● Industry Data
  ○ Gartner - https://www.gartner.com/en
● Institutional Data
  ○ National Community College Benchmarking Project - https://www.nccbp.org/
  ○ CUPA-HR Salary and Healthcare surveys - https://www.cupahr.org/
● IT Data
  ○ EDUCAUSE Core Data Service (CDS) - https://www.educause.edu/coredata
  ○ EDUCAUSE Technology Research in the Academic Community (ETRAC) - https://www.educause.edu/etrac
  ○ TechQual+ - https://www.techqual.org/docs/default.aspx
  ○ Measuring Higher Education Library & IT Services (MISO) - https://www.misosurvey.org/
  ○ HDI (service desk) - https://www.thinkhdi.com/
● IT and HE Trends
● Finding peers
  ○ College Navigator - http://nces.ed.gov/collegenavigator/
  ○ Carnegie Classification - http://carnegieclassifications.iu.edu/
Display

- Gestalt - principles for data visualization
  - [https://www.fusioncharts.com/blog/how-to-use-the-gestalt-principles-for-visual-storytelling-podv/](https://www.fusioncharts.com/blog/how-to-use-the-gestalt-principles-for-visual-storytelling-podv/)
  - [https://emeeks.github.io/gestaltdataviz/section1.html](https://emeeks.github.io/gestaltdataviz/section1.html)
- Inclusive stock photos
  - [www.flickr.com/photos/wocintechchat/](http://www.flickr.com/photos/wocintechchat/)
  - [https://jopwellcollection.jopwell.com/internedition/](https://jopwellcollection.jopwell.com/internedition/)
- Icons
  - [https://www.flaticon.com/](https://www.flaticon.com/)
  - [https://thenounproject.com/](https://thenounproject.com/)
- Tools
  - Excel templates - [https://exceldashboardschool.com/cat/chart-templates/](https://exceldashboardschool.com/cat/chart-templates/)
  - Power point templates - [https://slidemodel.com/templates/tag/dashboard/](https://slidemodel.com/templates/tag/dashboard/)
  - Infogram - [https://infogram.com/app/#/templates/dashboards](https://infogram.com/app/#/templates/dashboards)
  - Piktochart - [https://create.piktochart.com/report](https://create.piktochart.com/report)
  - Statpedia - [https://statpedia.com/](https://statpedia.com/)
  - Google Charts - [https://developers.google.com/chart/interactive/docs/gallery](https://developers.google.com/chart/interactive/docs/gallery)

Delivery

- Daniel Pink - How To Write A Good Speech - [https://www.youtube.com/watch?v=AOacRdYYzV4](https://www.youtube.com/watch?v=AOacRdYYzV4)
- EDUCAUSE Concierge - [https://www.educause.edu/conferences-events/presenter-concierge](https://www.educause.edu/conferences-events/presenter-concierge)
- Cognitive Load Theory - [https://teachinghow2s.com/blog/cognitive-load](https://teachinghow2s.com/blog/cognitive-load)