

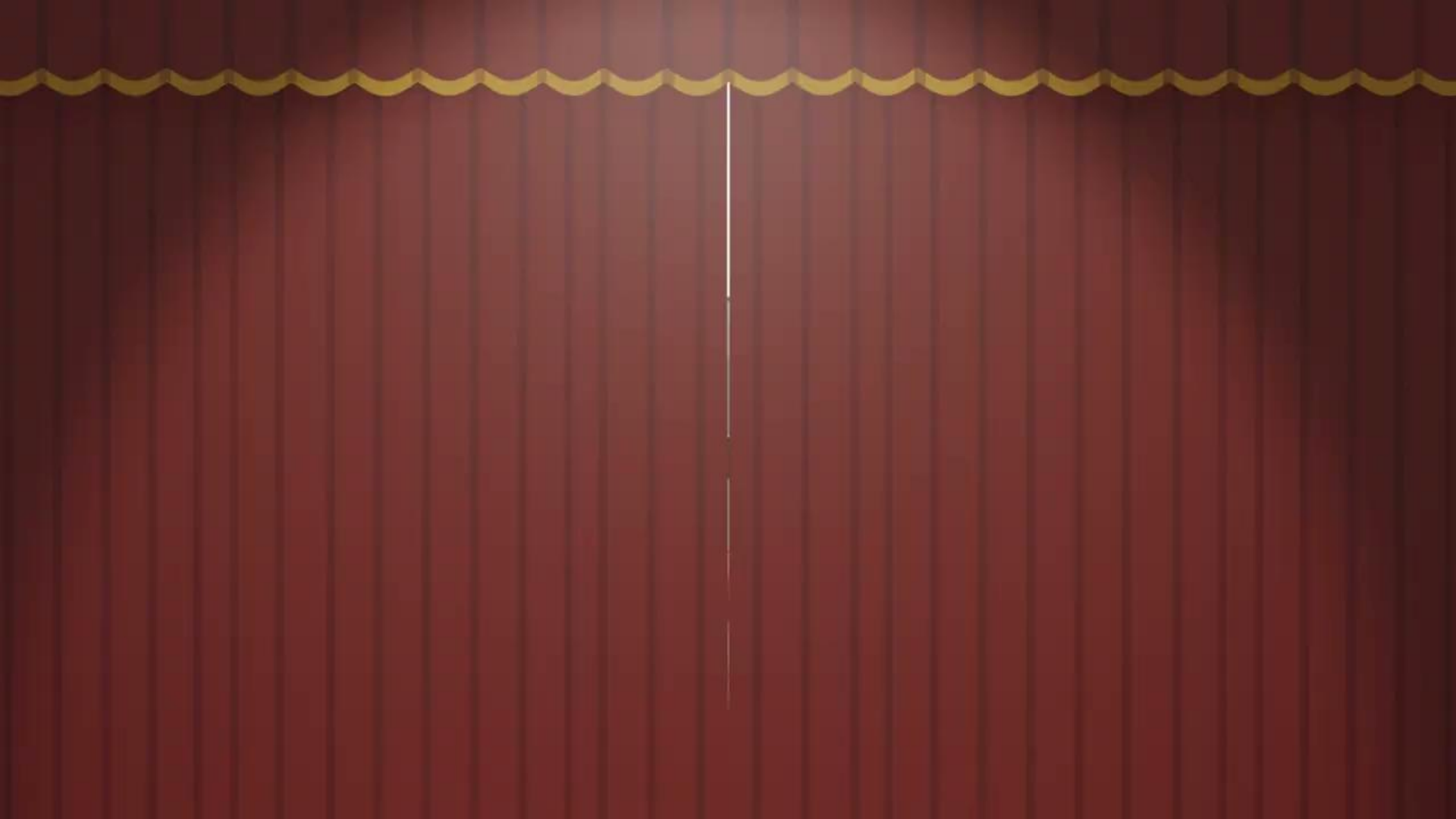
Bladder Basics



Bladder Basics Microsite

**A Small Team Dreaming Big:
How We're Making Bladder Basics:
an Educational, Interactive Cartoon for Kids**

ICEMT Conference





Stanford
MEDICINE

Educational Technology
Technology & Digital Solutions

We are Stanford Medicine's in-house studio of learning designers, media producers, and academic technologists. We offer a range of educational technology services and special projects, including video production, podcasts, animation, and interactive design.



BOARD OF TRUSTEES VOTE TO MOVE
STANFORD CAMPUS

Our Presenters



Claire Follis
Learning Designer



Huy Tran
Production Lead



Lauren Watley
Digital Media Specialist



Grace Sextro
Media Production Specialist



Mike McAuliffe
Project Manager



Katherine Cao
Media Production Specialist



William Bottini
Creative Director

Kan Lab

Kan Lab is a pediatric urology lab investigating lower urinary tract symptoms in elementary school children using community-engaged research for improved treatment and prevention.

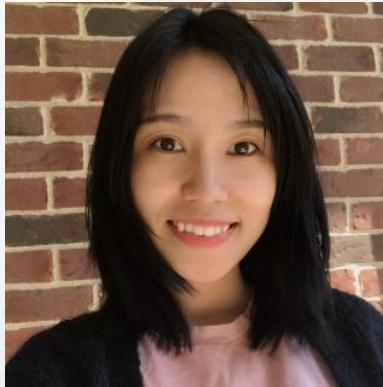
Kan Lab partnered with us to expand their "Bladder Bootcamp" into a national online course – called Bladder Basics – in order to broaden access to their high-quality care.



Kathleen Kan
Clinical Assistant Professor, Urology
Course Director



Aditi Sharma
Project Lead



Chenxi Liu
Learning Design Lead & Project Lead



And many more!

How might we leverage our unique abilities to design transformative learning experiences that not only meet the needs & expectations of our learners, but also truly resonate & make a lasting impact?



Presentation Goals

- Share a few lessons learned
- Help you understand what goes into producing educational content of this scale
- Get you inspired about your next project
- Direct you to some resources we've created for you on the Bladder Basics microsite



Bladder Basics Microsite

What is Bladder Basics?

- A course on healthy bladder habits for kids
- 7 videos with interactive puzzles and assessments
- 6 original songs
- Approximately 1 hour



Bladder Basics uses innovative yet accessible techniques, including performance capture animation, 3D, e-learning software, & cloud-based collaboration tools to reimagine what's possible for a small educational technology team.



**Animation
and 3D**

**Learning design
and research**

**Tracking tasks
and costs**



**Creative
direction**

**Workflow and
communication**

**Creating
characters**

**A Small Team
Dreaming Big**

Designing for Children

Language:

- Developmentally appropriate
- What is trendy vs. universal?

Characters & Environment:

- Recognizable
- Colorful
- Relatable

Interactive Learning:

- Speaking to the learner directly
- Songs!
- Interactive learning experiences



Lesson 4

Interactive Videos

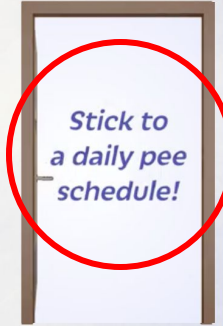
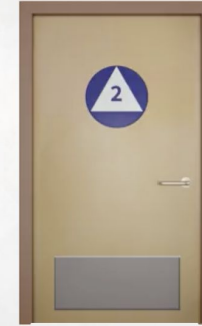
Creating a scaffold of learner recall for primary learning objectives.

- Drag & Drop
- Click & Flip
- Select One

Why is this important?

- Resets focus
- Short bursts of information
- Aids in recalling important information
- Puts learning objectives into real life context

Click on the three doors below to uncover the most important habits to keep your bladder happy!



Continue

Lesson 5

Let's look at our healthy bladder habits. What are the easiest to do? Maybe these are the ones you are already doing. What do you think is going to be the most difficult to practice?

Drag and drop each bladder habit into a column below.



Pooping a soft poop every day

Easy to do!



Eating more fiber rich foods



Practicing deep breathing and relaxed posture on the toilet

Might be a little hard to change!



Drinking more water

I'll have to work extra hard on this one!



Peeing every three hours

Submit

Creative Direction

- Learner-appropriate
- Memorable
- Shareable
- Scaleable
- Synergistic



Creative direction is the process of defining & guiding the visual, conceptual, & communicative aspects of a project to ensure a cohesive outcome.

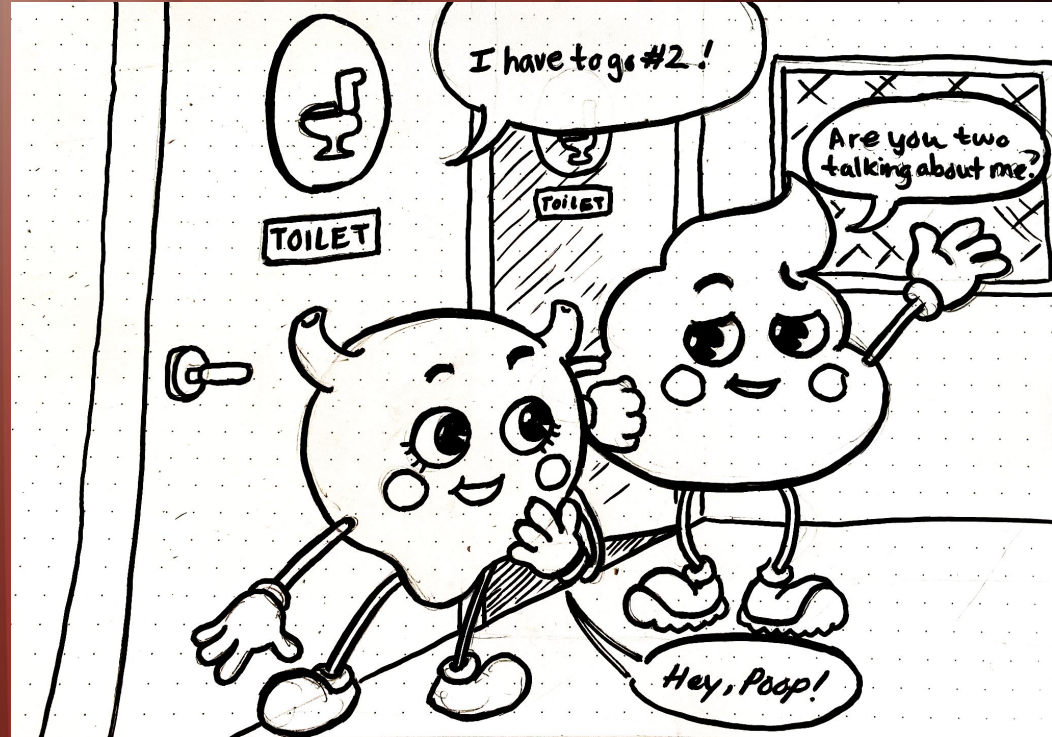
LEARNER-APPROPRIATE

- Communication
- Empathy
- Cooperation
- Conflict resolution
- Friendship
- Developing a sense of identity



MEMORABLE

- Distinctive characters
- Engaging storylines
- Visual appeal
- Humor
- Catchy music
- Relatable themes
- Iconic moments
- Emotional connection



SHAREABLE

Learning objectives are summarized in musical recaps

- “Be Brave”
- “The Bladder is Part of the Body”
- “When We Work Together”
- “Poop and Pee (Side by Side)”
- “Healthy Happy Harmony”
- “Keep Going! (To The End)”



Dear traveler on your quest for bladder health.
I want to remind you to believe in yourself.
You can have a happy bladder, just be brave.

Be brave as you work on yourself.
Be patient through all of your ups and your downs.
Lean on your team when you need help.
They're there for you.

So far we've learned
to use words for positive and negative emotions,
and even though you pee by yourself,
you are never alone.

SCALEABLE

Designed to be expanded,
translated, & updated over time

Words on screen are minimized

Characters' voices can be dubbed
over

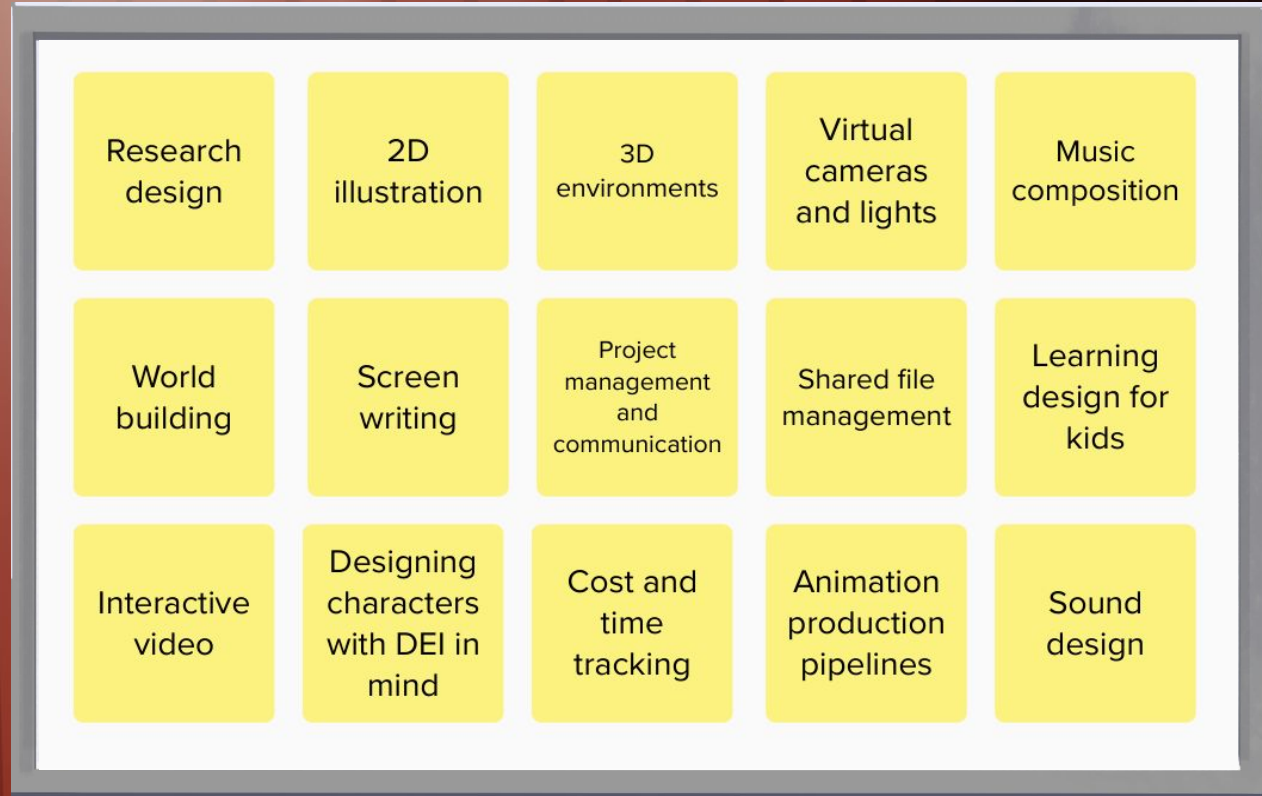
Much of the artwork is reusable,
adaptable, and straightforward to
update



SYNERGISTIC

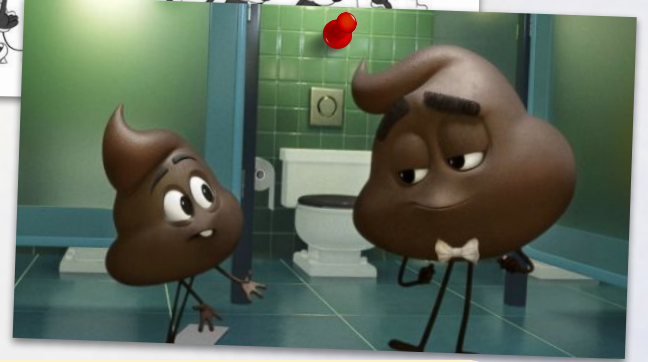
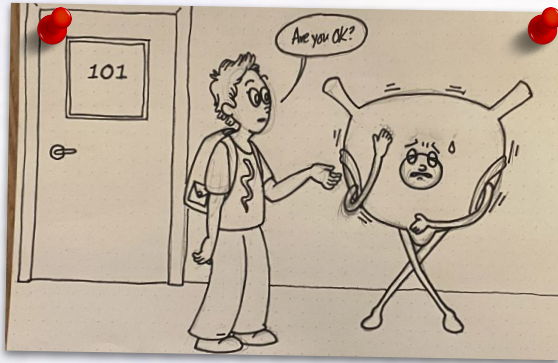
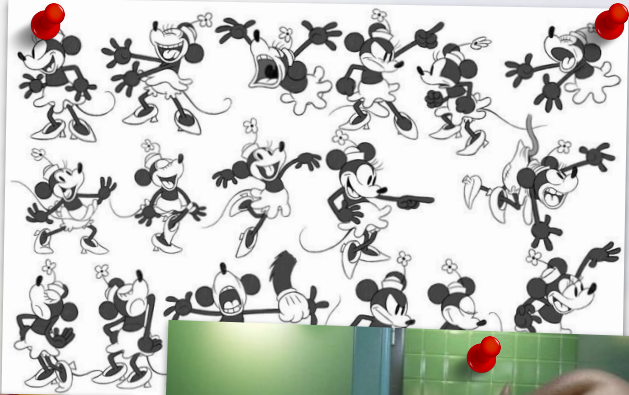
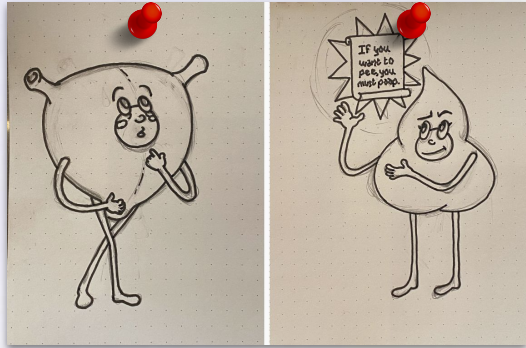
The sum is greater than the parts.

It was a learning experience for our team, one that we hope others can learn from too!



Creating Our Cast of Characters

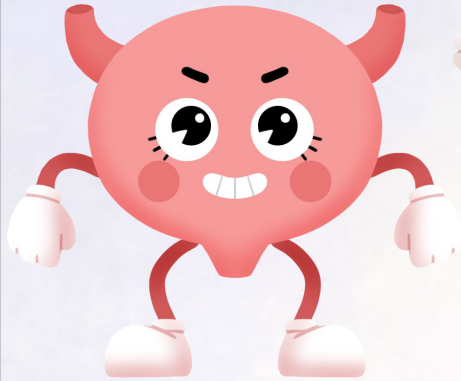




Preliminary sketches by William

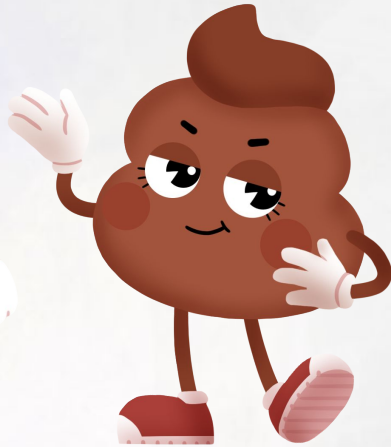
Using Mural for brainstorming and moodboarding

KNOW YOUR AUDIENCE!



BLADDIMIR

Energetic, funny, big ups and downs.
Sometimes very needy. Extroverted.
Caring.



POOTRICK

Cool and confident.
Slightly older kid.
Storyteller with expressive body language.



BRAINHAVI

Big brain with geeky glasses.
Always on phone.
Easily distracted and emotional.

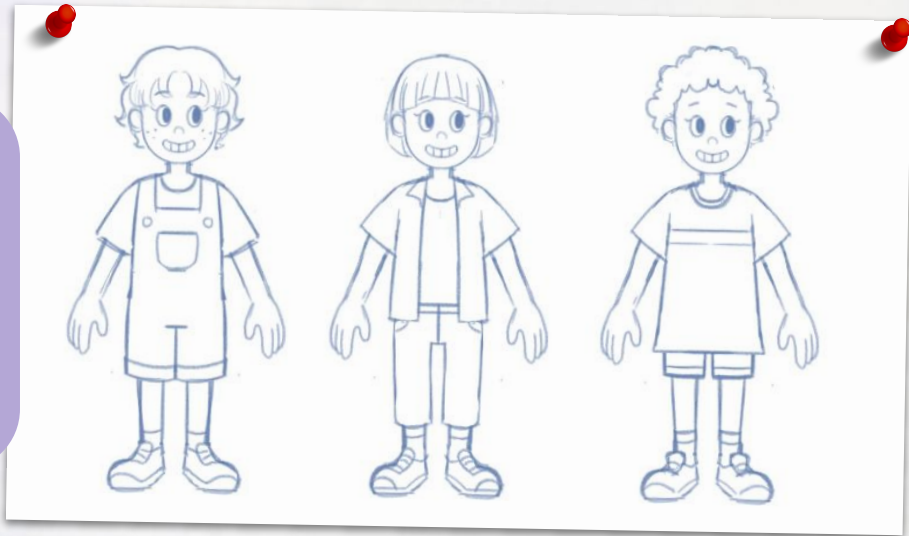


WATERLUPE

Younger kid. Naive and generous.
Surprisingly great vocalist.

KAI

4th grade. Kind and
willing to learn.
Androgynous.
Latinx.



Draft designs



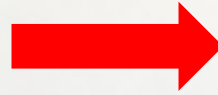
Final design

DR KAN

The host of the show. Kind, approachable, wise, clever.



Initial design



Final design

Key Takeaways

- When creating characters for a story, it's important to consider the target audience and design characters that are appropriate for them.
- Tools like Mural can be useful in brainstorming and creating a visual direction for a project.
- Creating a diverse cast of characters will allow for more relatable, inclusive storytelling.

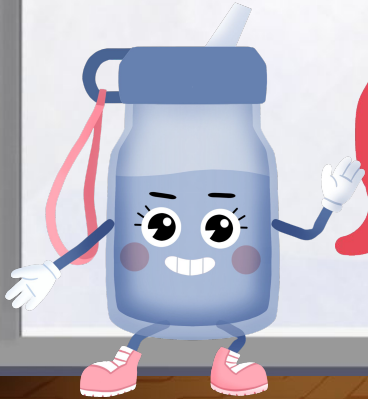
From Script to Storyboard

storyboard (*n*): a sequence of drawings, typically with some directions and dialogue, representing the shots planned for a movie or television production.

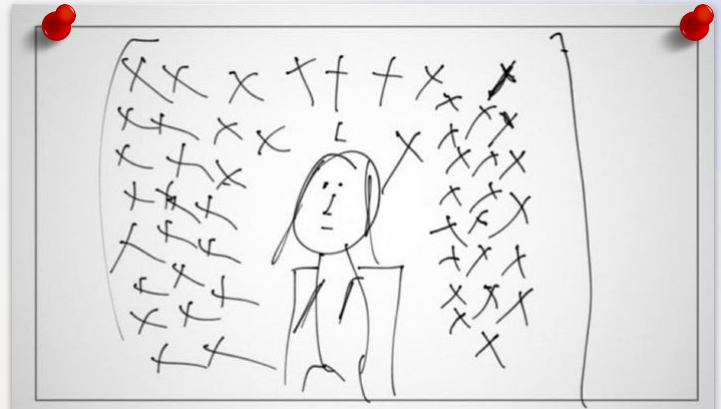
A storyboard template sheet is shown, pinned to a light blue background with two red pushpins. The sheet is white and features a header section at the top with the following fields: TITLE _____, NAME _____, YEAR & SUBJECT _____, PAGE ____ OF ____, and DATE _____. Below the header, the storyboard is divided into six panels arranged in a 2x3 grid. The top row contains EXPOSITION, CONFLICT, and RISING ACTION. The bottom row contains CLIMAX, FALLING ACTION, and RESOLUTION. Each panel is a large empty square with a thin black border. Below each panel are two horizontal lines for notes or dialogue.

Storyboarding

- Identify potential issues with the script before production begins
- Communicate the direction, pacing, and overall structure to the rest of the team
- A key reference during the production process, ensuring consistency in shot composition, camera angles, character movements, and more.



**It doesn't have
to look good!**



A storyboard from Rian Johnson's film, *Knives Out*

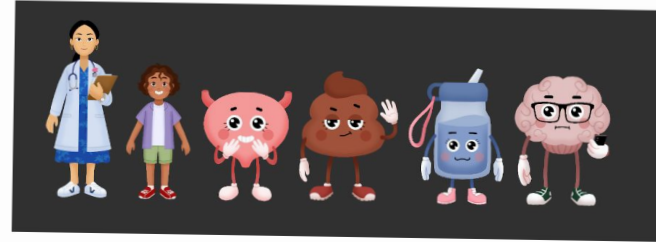
Casting our Characters

- Casting call shared on Upwork, email to SOM, shared on socials, word of mouth
- Included description of project, characters, where and how to submit

Stanford Medicine Casting Call B.R.A.V.E.

Brave is a short online course on maintaining bowel and bladder health in children that is fun and memorable through its use of animated storytelling and interactive activities. It will give guidance to patients before clinical appointments.

Looking for VOICE ACTORS.



- Kai
 - Description: Gender is ambiguous, in 4th grade, kind, willing to learn. Could be anyone's best friend. Latinx.
- Bladimir
 - Description: energetic, funny, big ups and downs. Sometimes very needy. Extroverted. Caring.
- Pootrick
 - Description: cool and confident, characterized as a slightly older kid. Has a lot to teach the others. Storyteller. Expressive body language. Theatrical and cool.
 - [Pootrick's song \(without lyrics\)](#)
- Walter C. Bottle
 - Description: on the younger side (maybe a year younger), somewhat naive but generous. Feminine.
- Brainhavi
 - Description: a big brain with geeky glasses. Always on their phone. Very smart but prone to distraction and emotion.

\$300 rate (estimated total time is 1 day per character, plus potential additional half day for pickups)

Submit for any/all characters - Ability to sing required - Child-like voices preferred

Include demo of [this song \(song who vocals\)](#) or another children's song (lyrics are at the bottom of this document)

Must submit dialogue and song to the [BRAVE Casting Call Form](#) - Sides and lyrics for song below - Submit no later than 9/5/22

Casting our Characters

- Call was for child-like, androgynous voices
- Each actor was instructed to read sides for the characters
- 66 auditions
 - Many didn't follow instructions!

SIDES for BLADIMIR and BRAINHAVI

BLADIMIR:

I'm full, it's time to pee!

A photo of BRAINHAVI playing soccer appears in the messages.

BRAINHAVI:

I'm playing. I'm having too much fun right now, I'll go later.

BLADIMIR:

I'm full, I really got to pee!

A photo of BRAINHAVI's wristwatch which reads "9:30AM"

BRAINHAVI:

I don't want to miss class, I'm afraid what the teacher will say.

BLADIMIR:

Hey BRAINHAVI, c'mon! I am completely full!

A photo of a public bathroom appears in the messages.

BRAINHAVI:

I am not comfortable using public restrooms.

BLADIMIR:

BRAINHAVI. I have to empty now!!

A photo of video games from BRAINHAVI appears in the messages.

BRAINHAVI:

Hold on, I want to play my video games!

Recording Remote Actors

- Coordinating with different time zones
- Actors using different software
- Using Zoom to communicate while recording



Our actors recorded from:
California, Florida, Massachusetts, Maine,
Azerbaijan, and the Philippines

Recording In-Person

- Using Adobe Audition
- EdTech Recording Studio

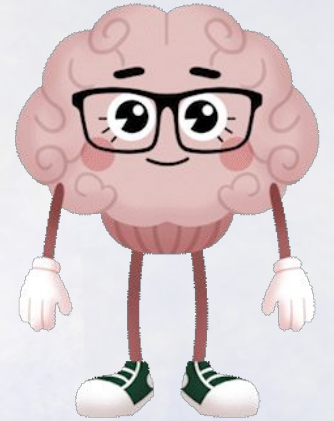
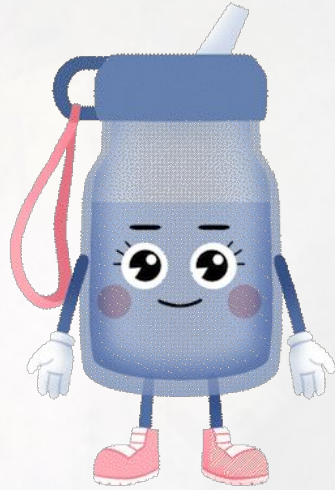
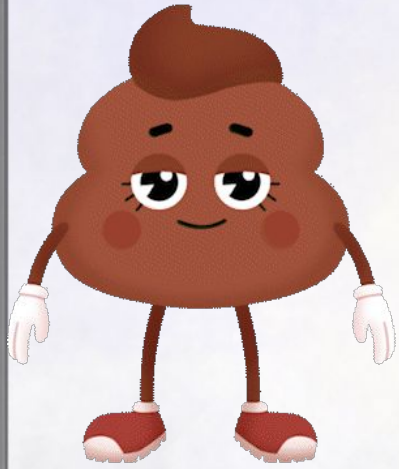


Lessons Learned

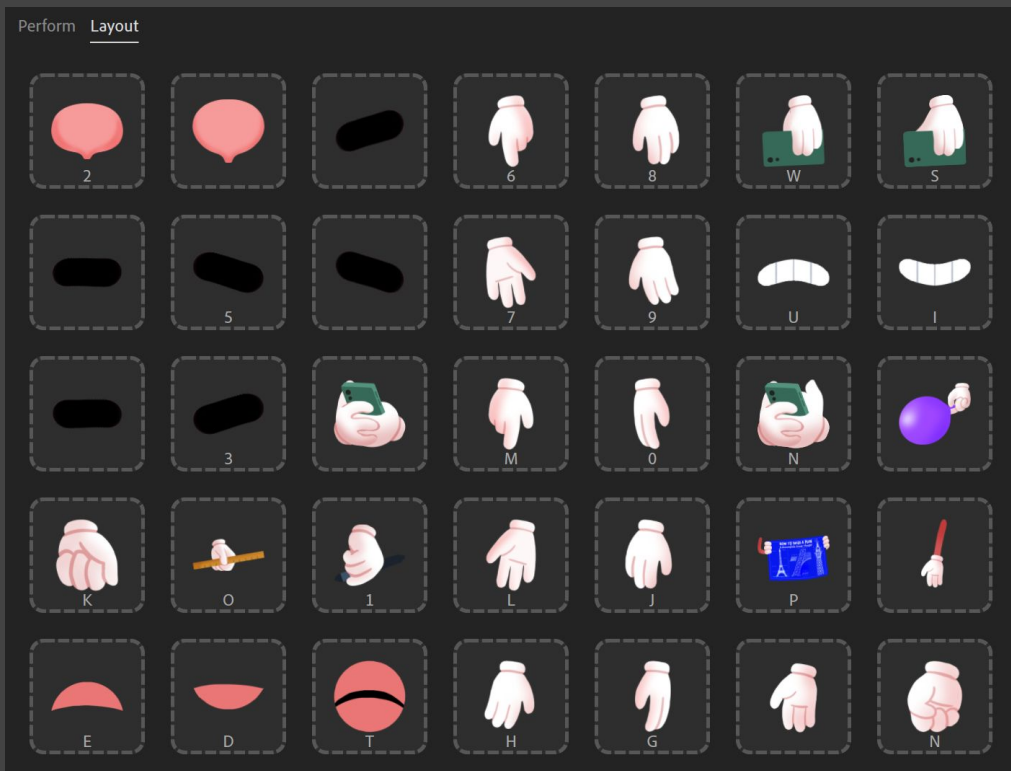
- Ask about equipment beforehand
- Build in time



Everyone had different software and microphones



Character Animation: Cartoon Power!



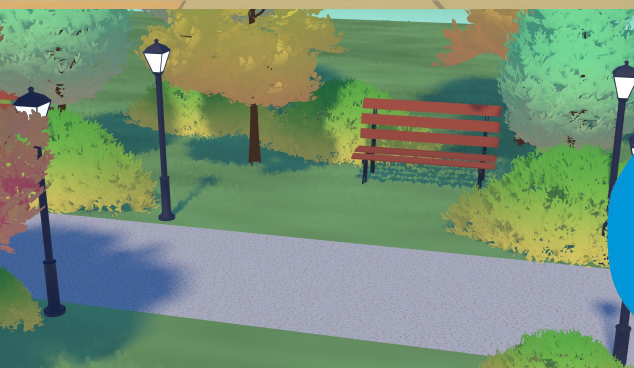
The Digital Puppeteer



From Puppet to Performance



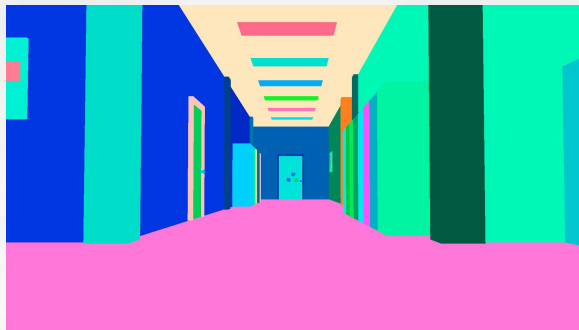
Pose-to-Pose Animation



Our 3D Stages



Depth pass



Mask pass



Beauty pass



Compositing



Final look

Compositing: Putting Everything Together

Our Tools

What tools are required to operate a fully remote production studio?



Communication

Slack, Zoom

Questions
Support
Instant feedback

ftrack

Project Management

ftrack

Task management
Time management
Review



Assets Management

Google Drive

Version control
Documentations
Synchronization



Mural

Ideas
Brainstorm
Moodboards

3D pipeline (Blender)

Environment
Lighting
Camera



2D pipeline (Adobe CC)

Illustration
Graphic
Video editing
Compositing

Podio
Project intake,
prioritization, invoicing



upwork

Upwork

Talent management
Contract setup



**Dream
Big!**

Good faith estimate based on client proposal, budget, and timeline

- Budget: \$33,000
- Timeline: 4-5 months
- EdTech time: 545 hours

Initial Estimate

1931h 3m
Hours tracked

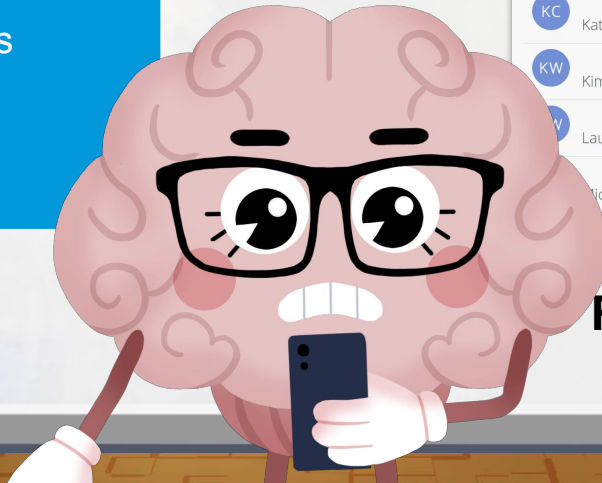
1
Projects

10
Users

Timeline: May 2022 - March 2023

User	Total	Billable	Non billable
BM Bindu Madhava	27h 30m	13h 0m	14h 30m
CF Claire Follis	167h 41m	100h 21m	67h 20m
GS Grace Sextro	187h 33m	174h 33m	13h 0m
HT Huy Tran	362h 1m	339h 53m	22h 7m
JW Jessica Whittemore	1h 0m	1h 0m	
KC Katherine Cao	268h 10m	188h 30m	79h 40m
KW Kim Walker	8h 30m	6h 0m	2h 30m
V Lauren Watley	460h 50m	417h 40m	43h 10m
Michael McAuliffe	1h 0m		1h 0m
am Bottini	446h 48m	419h 0m	27h 47m

Real Time Investment



Value to Our Client

**Dream
Big!**



Can we make this project:

- More effective?
- More engaging & fun?
- Better aligned to the audience's needs?
- Easier to remix or reuse?

If yes, can we help the client secure more funding?
Or, can our team subsidize the production?

Value to Our Team

**Dream
Big!**



Can we use this project to:

- Offer professional development to our staff?
- Collaborate with new teams & partners?
- Make progress against strategic goals?
- Help retain our talented team members?

If yes, subsidizing the production becomes a strategic and cost-effective expense.

Value to Our School

**Dream
Big!**



Projects like this one provide:

- Exemplars to inspire faculty ambition
- Media that can be remixed for use in the curriculum
- Project cost and timeline data to guide decision making
- User metrics and survey data to validate approaches
- A more experienced team and improved processes for the next big dream!

How Do We Measure Lasting Impact?

Public feedback from parent groups

Scripting

Characters & Names (DEIB)

Lesson 4



Interactives vs. No Interactives

Engaging animated content with interactives

Engaging animated content without interactives

Didactic course without interactives

In Person vs. Asynchronous

A/B Testing Groups

Pre & Post Surveys

Post-lesson knowledge checks

90 day follow up call

Looking Ahead

- Pilot launch this summer
- Spanish-language version this fall
- Public launch this winter



Do you have kids and want an early look at the full Bladder Basics course?

Sign up for email updates through our micro site for more information on upcoming beta studies!

How might we leverage our unique abilities to design transformative learning experiences that not only meet the needs & expectations of our learners, but also truly resonate & make a lasting impact?



Bladder Basics Microsite

- Check out our production documents and templates
- Sign up to hear about our course launch!

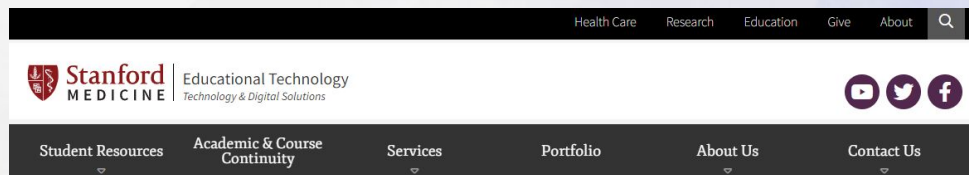


Bladder Basics Microsite

@stanfordedtech



Follow us to
continue the
conversation!



A Small Team Dreaming Big: How We Are Creating Bladder Basics, an Interactive Educational Cartoon for Kids

A microsite to accompany Stanford EdTech's 2023 WGEA presentation

Hello, dear WGEA 2023 attendees! We're thrilled to have you here with us today. Your presence and engagement are invaluable, and we're truly grateful for your interest in our presentation on Bladder Basics.

On this page you'll find our time-tested collection of eLearning production templates, which you can use to enhance your own projects. These templates have been thoughtfully designed by Stanford EdTech to streamline your content creation process and provide a strong foundation for your eLearning endeavors. In addition, we'd like to invite you to stay up-to-date on the public launch of the Bladder Basics course this winter.

[Trailer](#)

[About](#)