



# Approaching the Bleeding Edge: Possibilities & Practices for Learning Technology Integration



**Elgin Community College • March 2, 2018**


  **@jasonrhode**

**Technology is core to each of our experiences**





# Technology empowers us all

A photograph of Steve Gleason, a man with a beard and short dark hair, sitting in a wheelchair. He is looking down at a young child with light brown hair who is wearing a blue and white striped shirt. The child is leaning up towards Steve. In the background, there is a window with a view of greenery outside, a black leather couch, and a desk with a computer monitor and keyboard. The text "Steve Gleason" is overlaid on the right side of the image, with "Former NFL player", "Living with ALS", and "Dad" listed below it.

Steve Gleason  
Former NFL player  
Living with ALS  
Dad



# Conversation starters





# Questions for consideration

- **What are the current learning technologies on the horizon for higher education in the next 5 years?**
- **How do you personally choose what technology you use in your teaching?**
- **How do your students choose what technology they use?**
- **What response would you give to a colleague seeking assistance in choosing and implementing learning technology tools?**

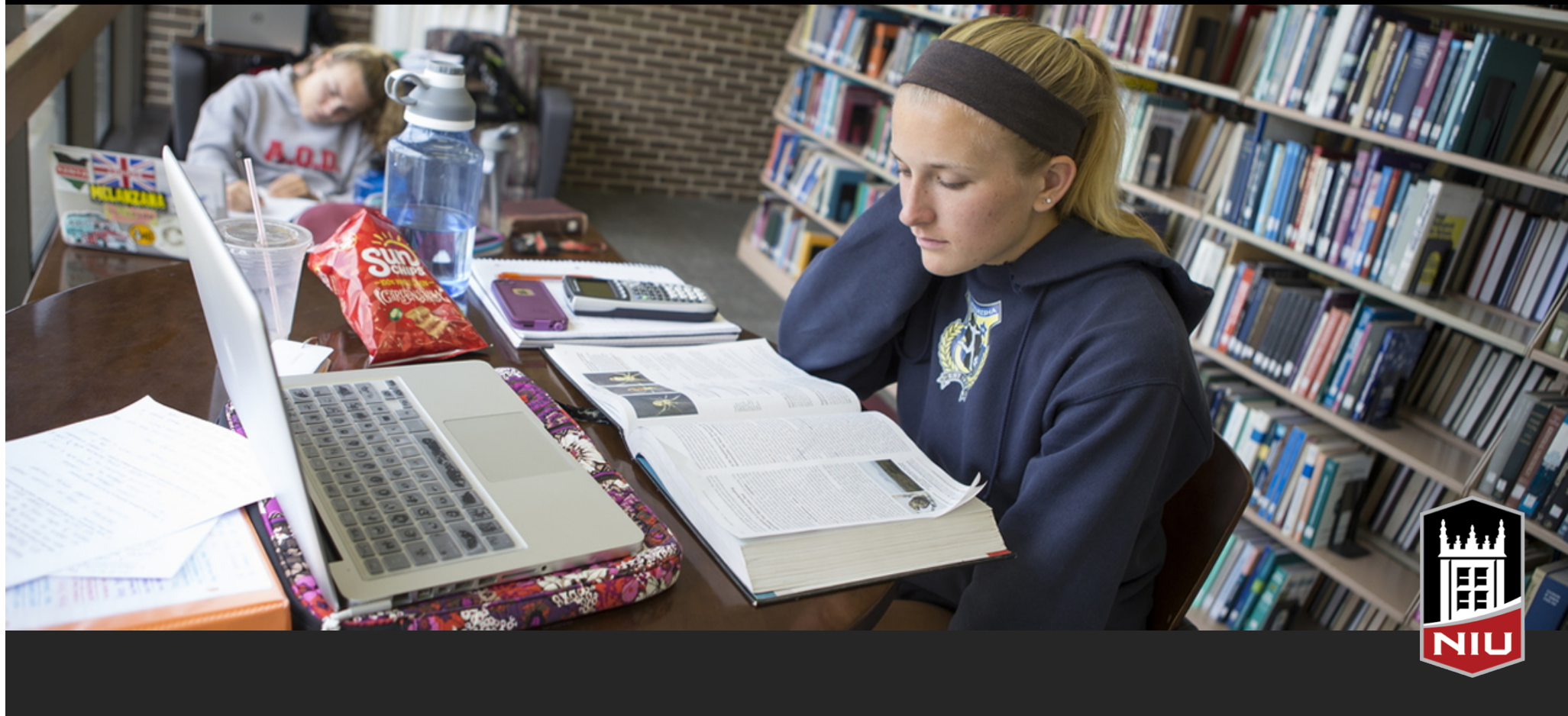


# Framing the discussion





# Technology permeates all aspects of culture and society



# Technology is only a tool, but can profoundly impact teaching and learning experience



*"If the only tool you have is a hammer, you tend to see every problem as a nail."*

- Abraham Maslow

Photo credit: <https://www.flickr.com/photos/jrhode/4632887921>





# 2017 *This Is What Happens In An Internet Minute*



# Many available personalized technology options





# Reliance on technology in higher education



# Mission critical elements of institutional infrastructure





# Empowering new forms of digital teaching



# Exploring advanced technology tools and practices





# Learning Technologies on the Horizon



# Machine Learning



Photo credit: <http://www.expertsystem.com/machine-learning-definition>



# Artificial Intelligence (AI)

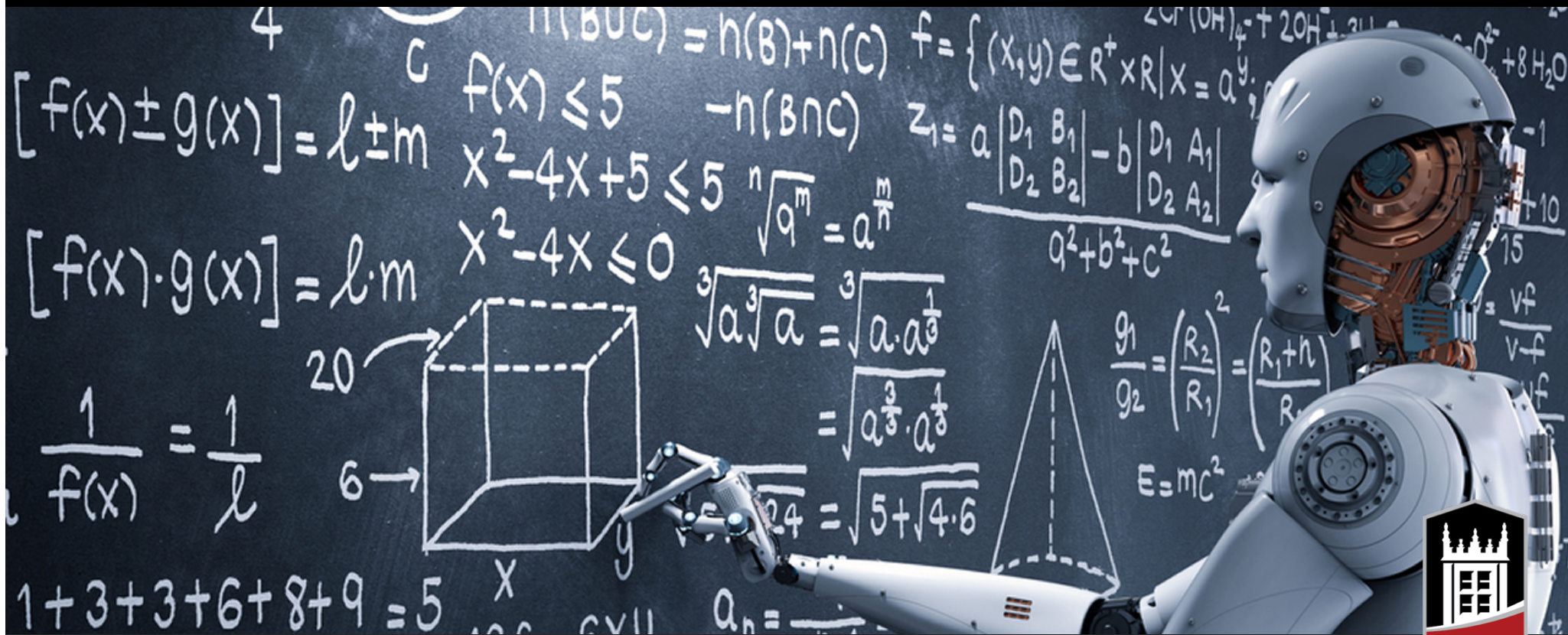


Photo credit: <https://techfinancials.co.za/2017/08/08/future-artificial-intelligence/>

# Digital Assistants



Photo credit: <http://www.rediff.com/money/special/tech-sassy-woman-or-machine-tech-giants-divided-over-digital-assistants/20151202.htm>





# Augmented Reality (AR)



Photo credit: <https://www.newscientist.com/article/mg23231044-600-augmented-reality-set-to-overtake-vr-as-new-apps-go-live/>

# Mobile devices and AR



Photo credit: <https://www.inverse.com/article/16407-ar-in-the-workplace>



# AR in K-12 learning



Photo credit: <https://flickr.com/photos/rhodefam/25607709737>



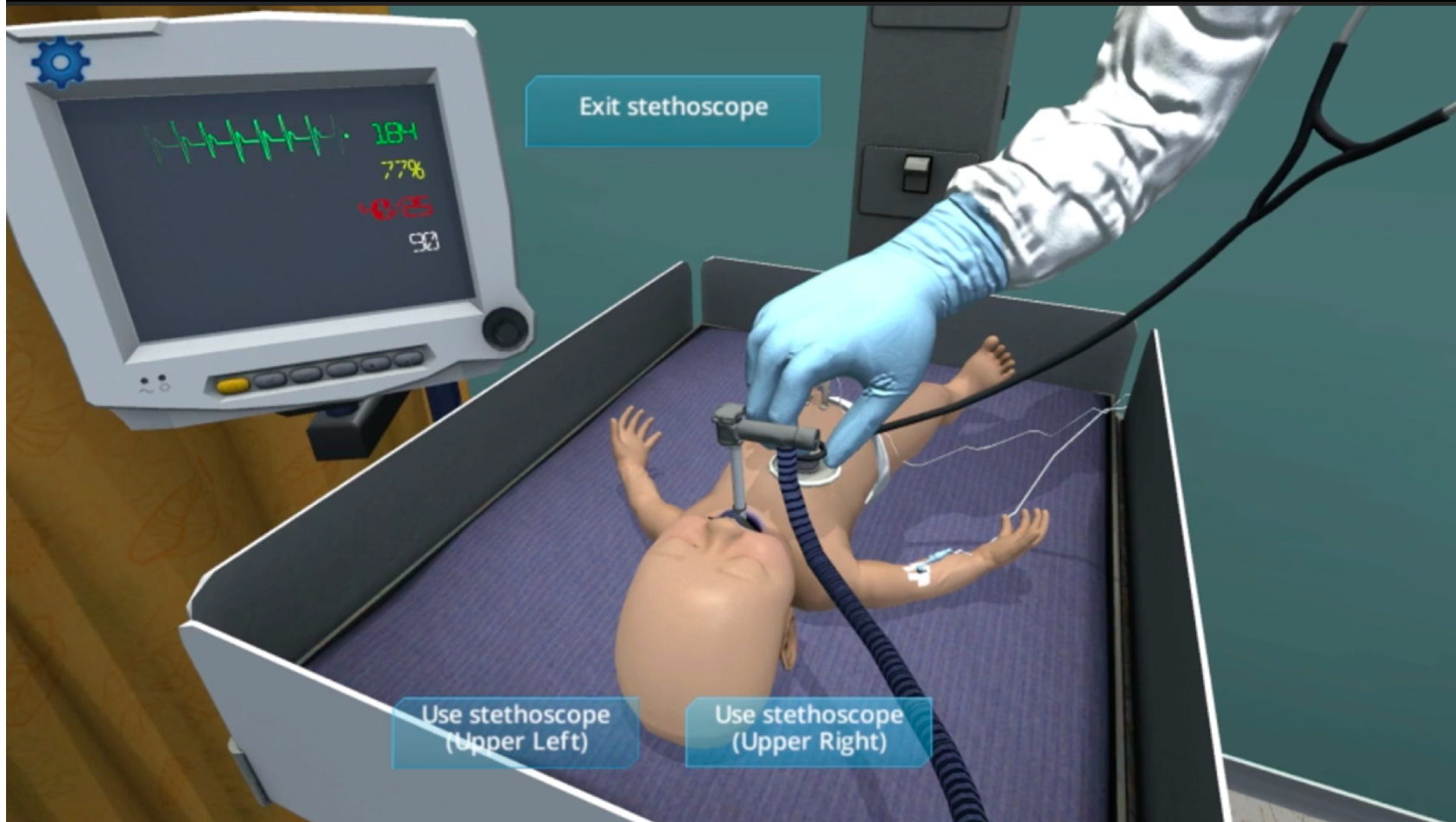
# Virtual Reality (VR)



Photo credit: <https://www.fi.edu/virtual-reality>



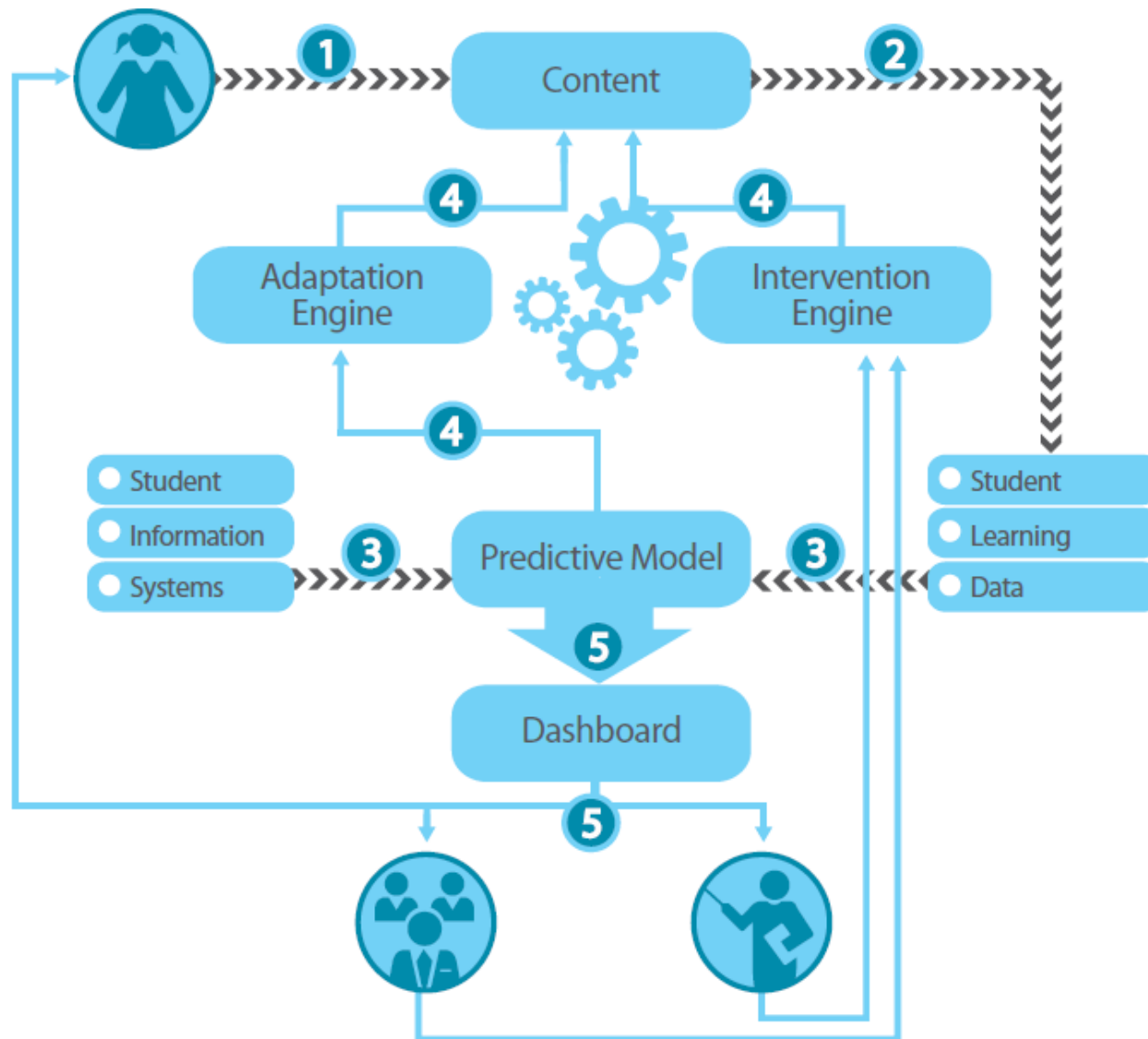
# Example of VR



# Adaptive Learning







# Considerations





# Considerations

- **Learning outcomes**
- **Available access to hardware and software**
  - Data plans, network infrastructure, etc.?
- **Aptitude and willingness to embrace new technology**
- **Level of support available**
- **Capacity and budget for absorbing cost of new tools**
  - Is “free” only option?
  - How will ROI for any associated cost be determined?



# Does your technology selection process resemble this?



Photo credit: <https://www.flickr.com/photos/nicubunuphotos/5262645427>



...or this?



Photo credit: <https://priyanthiv.wordpress.com/2014/09/24/missing-the-mark/>

...or this?



Photo credit: <https://thoughtco.com/using-your-finger-like-a-weather-vane-3444499>



# 7 Steps for Choosing Technology Tools



# Step 1: Start with Objectives


- What should the instructor and/or students be able to do?
- What is the desired impact and outcome of the technology integration?



**Step 1:** Start with your objectives



## Step 2: Survey the technology landscape

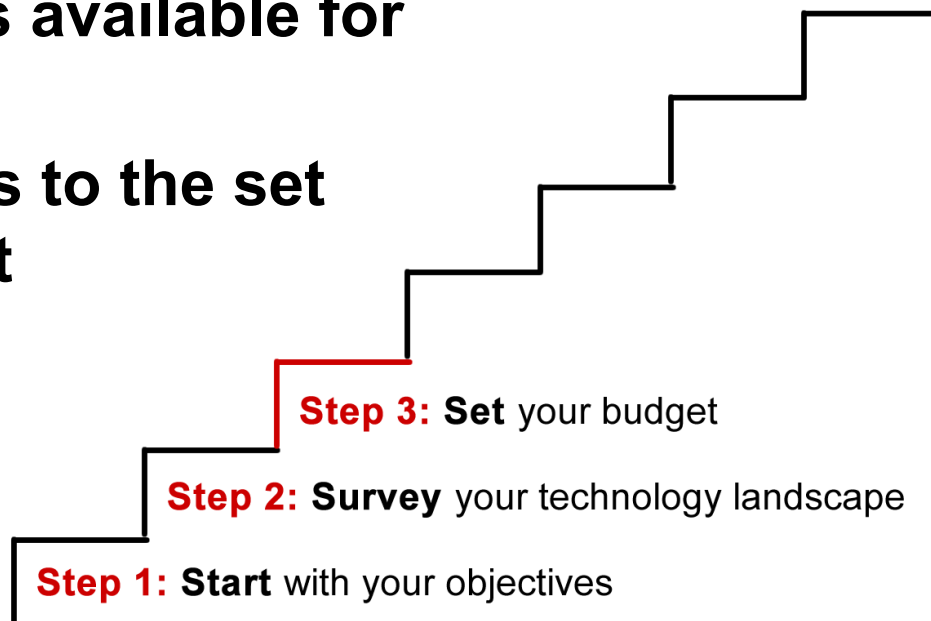
- What tools are the students and/or faculty already using?
  - What tools are working well and what others are not?
  - What tools are already provided and supported by the institution?
  - What tools are restricted?
- 
- Step 2: Survey** your technology landscape
- Step 1: Start** with your objectives





## Step 3: Set the budget

- Is a “free” solution required, or are resources available for a paid solution?
- Are any changes to the set available budget anticipated?



## Step 4: Sample available tools

- What are the pros and cons of each tool tried?
- What support is available for each tool?
- How does each tool integrate into the existing teaching and learning workflow?

**Step 1: Start** with your objectives

**Step 2: Survey** your technology landscape

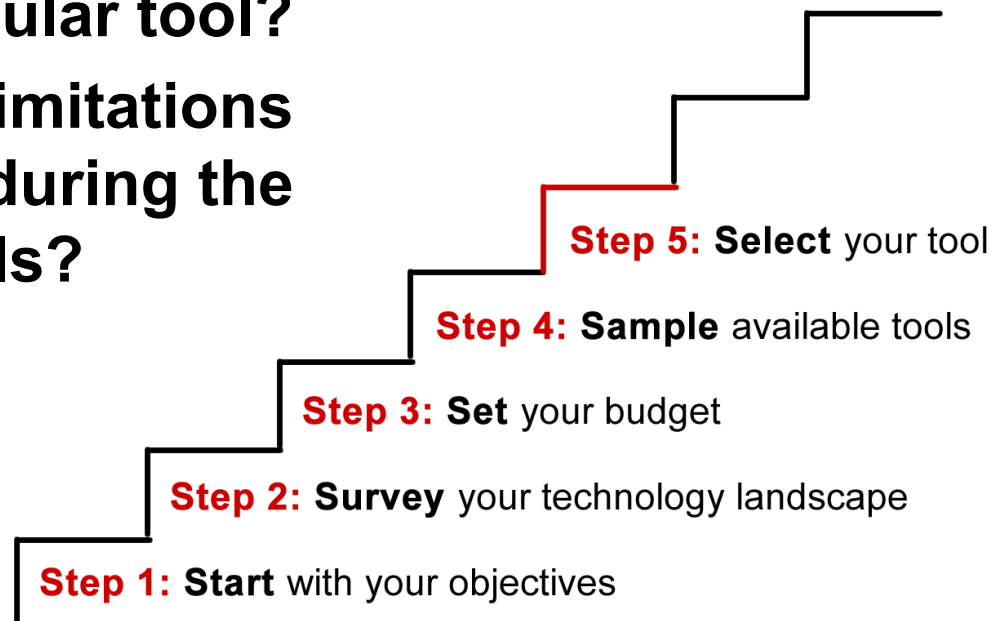
**Step 3: Set** your budget

**Step 4: Sample** available tools



## Step 5: Select the tool

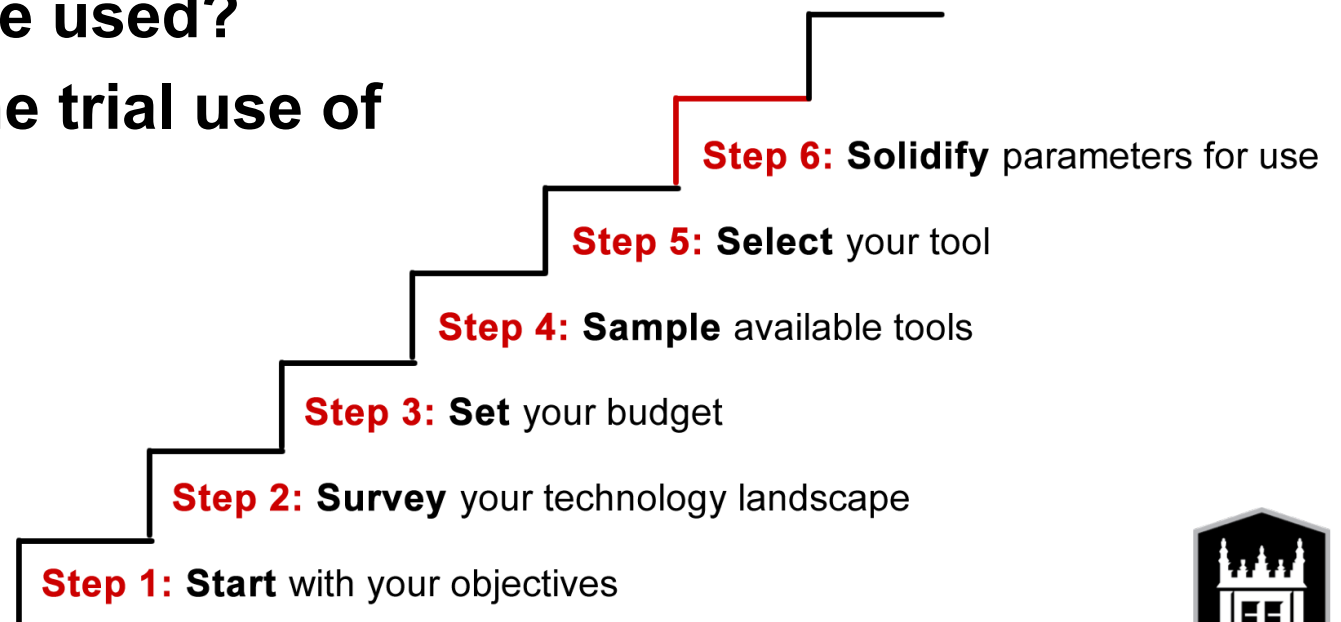
- Why was the choice made to select the particular tool?
- What potential limitations were identified during the sampling of tools?





## Step 6: Solidify parameters for use

- How will the tool be used and how will it not be used?
- How long will the trial use of the tool last?



## Step 7: Scrutinize the choice

- Did the tool meet expectations?
- What feedback has been received from the students on their use?
- What unexpected issues did users encounter?
- Is the tool working well enough to continue using?

**Step 1: Start** with your objectives

**Step 2: Survey** your technology landscape

**Step 3: Set** your budget

**Step 4: Sample** available tools

**Step 5: Select** your tool

**Step 6: Solidify** parameters for use

**Step 7: Scrutinize** your choice



# Example





# Step 1: Start with objectives

Questions for Consideration	Sample Responses
What should the instructor and/or students be able to do?	To record and provide short focused step-by-step video tutorials for students on how to use a specific software tool necessary for the course.
What is the desired impact and outcome of the technology integration?	For the instructor to be able to quickly record short video tutorials and to make available to students for viewing online via the LMS



## Step 2: Survey the technology landscape

Questions for Consideration	Sample Responses
What tools are the students and/or faculty already using?	YouTube for viewing videos. Faculty have also dabbled with uploading videos recorded on mobile phone to YouTube.
What tools are working well and what others are not?	Faculty is comfortable with web-based tools that don't require installation or setup.
What tools are already supported by the institution?	The institution doesn't provide any recommended software tools for recording video tutorials (aka: screencasts)
What tools are restricted?	None

## Step 3: Set the budget

Questions for Consideration	Sample Responses
Is a "free" solution required, or are resources available for a paid solution?	Yes, a free solution is needed
Are any changes to the set available budget anticipated?	Unfortunately no





## Step 4: Sample available tools

Questions for Consideration	Sample Responses
What are the pros and cons of each tool tried?	Jing – free, requires installation, includes limited hosting space, recordings limited to 5 mins. Screencast-o-Matic – free, no installation needed, includes hosting space, recordings up to 15 mins. ...
What support is available for each tool?	No support from the institution is provided for either tool, but both do provide online support community on their websites
How does each tool integrate into the existing teaching and learning workflow?	Jing requires a download and needs to be running on computer to record, while Screencast-o-Matic is completely browser-based, easier workflow for working from multiple computers

## Step 5: Select the tool

Questions for Consideration	Sample Responses
Why was the choice made to select the particular tool?	Choice was made to try Screencast-o-Matic since it was browser-based and allowed for recording up to 15 minutes; also provides cloud-based storage options for either screencast-o-matic.com or private YouTube account, giving instructor increased options for where to store videos
What potential limitations were identified during the sampling of tools?	Download/installation as well as 5 minute recording limitation of Jing were significant limitations that Screencast-o-Matic didn't have; Neither solution allowed for easy editing of videos for post-production, but the ease of outweighs the editing limitations

## Step 6: Solidify parameters for use

Questions for Consideration	Sample Responses
How will the tool be used and how will it not be used?	<p>Will be used to record on-screen step-by-step tutorials 5-10 minutes in length, on performing particular software tasks necessary for the course.</p> <p>Will not be used for recording other topic intro videos of the instructor, in which recording using a mobile phone and uploading to YouTube will suffice</p>
How long will the trial use of the tool last?	Screencast-o-matic will be used for an entire semester, then re-evaluated after the semester



## Step 7: Scrutinize the choice

Questions for Consideration	Sample Responses
Did the tool meet expectations?	Yes! Tool was very easy to use. Links to videos could easily be posted in LMS and/or videos embedded for students to access
What feedback has been received from the students/instructor on their use?	Students reported being able to view from either computer browser or mobile device. Instructor workflow to record and upload was simple.
What unexpected issues did users encounter?	Experienced small glitch trying to upload to personal YouTube account, instead used screencast-o-matic.com hosting and made videos unlisted
Is the tool working well enough to continue using?	Yes! Worked very well, no issues. Will use again the next semester.

# Closing Thoughts



## **Keep in Mind**

- **Pedagogical potential of instructional technologies**
- **Technology tools can enable teaching and learning experiences otherwise not possible**
- **Technology tools should never be used simply for novelty sake, but should be a means toward achieving an instructional goal**





**Q&A**

**Slides & videos available at:**

**[jasonrhode.com/ecc2018](http://jasonrhode.com/ecc2018)**

