

# As we wait for the presentation to begin, You may wish to get a head start by...

--taking a coloring sheet (your choice) and some colored pencils (please share if we run out).

--Downloading the following apps from your respective “store” to your phone/tablet/phablet



--*Augment*



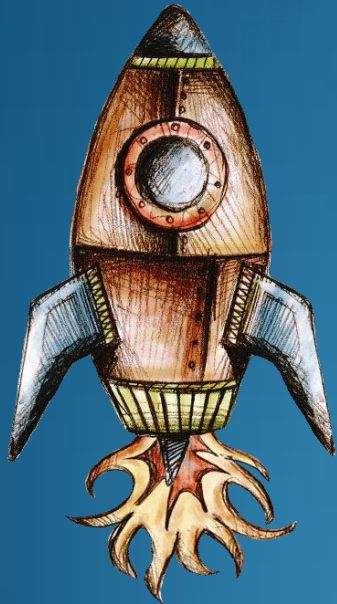
--*CoLAR*



--*Aurasma*



# Using Augmented Reality To *Skyrocket* Student Engagement!



Presenter: Andrew Haak  
Classroom Teacher / Tech Integration  
Holton Middle School



**Learning Target(s):**

*To define augmented reality!*

*To analyze how these technologies can be used to effectively engage the  
“digital natives” in our classrooms!*

*I can use Sketchup Pro & other apps to create augmented reality!*



# A Little About Me...

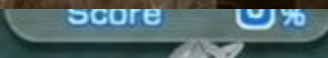
## Personal Bio

--My wife Jennifer is a social worker with Muskegon County CMH

--I have 3 children, Abby (8), Gavin (7), and Joshua (4)



In my spare time, I am a complete and utter computer geek.



# **A Little About Me...**

## **Professional Bio**

**--Academic Computing Dept. (1996 – 2001)**

**--North Muskegon High School (2001-2)**

**--Steele Middle School (2002-3)**

**--Holton High School (2003-present)**

**--14th year as a classroom teacher!**

**--Recently honored with a Muskegon Chronicle article about my efforts to create my version of a 21st Century Classroom! (for less than \$500!)**

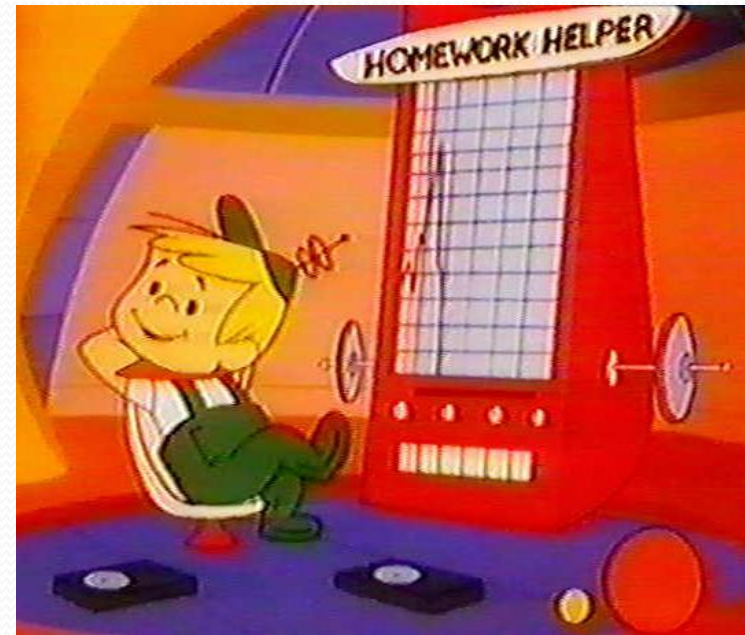
# The Classroom of the Future...Today! Please?

As educators, we have all heard quite a bit about creating “21st Century Classrooms,” where children are interactive with technology, each other, and even the furniture.

But while educators continue to wonder how / laugh at the idea that they will get several hundred thousand dollars per classroom to fund these wondrous new technologies...

...almost 14 years of the 21st century have already passed us by!

**Augmented Reality is an easy (and awesome) way to kickstart any classroom into the 21<sup>st</sup> Century TODAY!**



# What is Augmented Reality (AR)?

Detailed answer → *Using a camera-enabled device to view superimposed computer-generated objects or video in a real-time environment*

Shorter answer → *On a computer/phone/tablet screen, you get to see and “hold” things that are not actually there...*

Chances are, you have already seen examples of AR...



# It's Hard to Break From the Norm...

A study by Larry Cuban showed that research going back to the 1920's showed that only *ten percent* of elementary and *five percent* of high school teachers make significant use of whatever new technologies are in popular use at the time (as cited in Houghton, 2004).





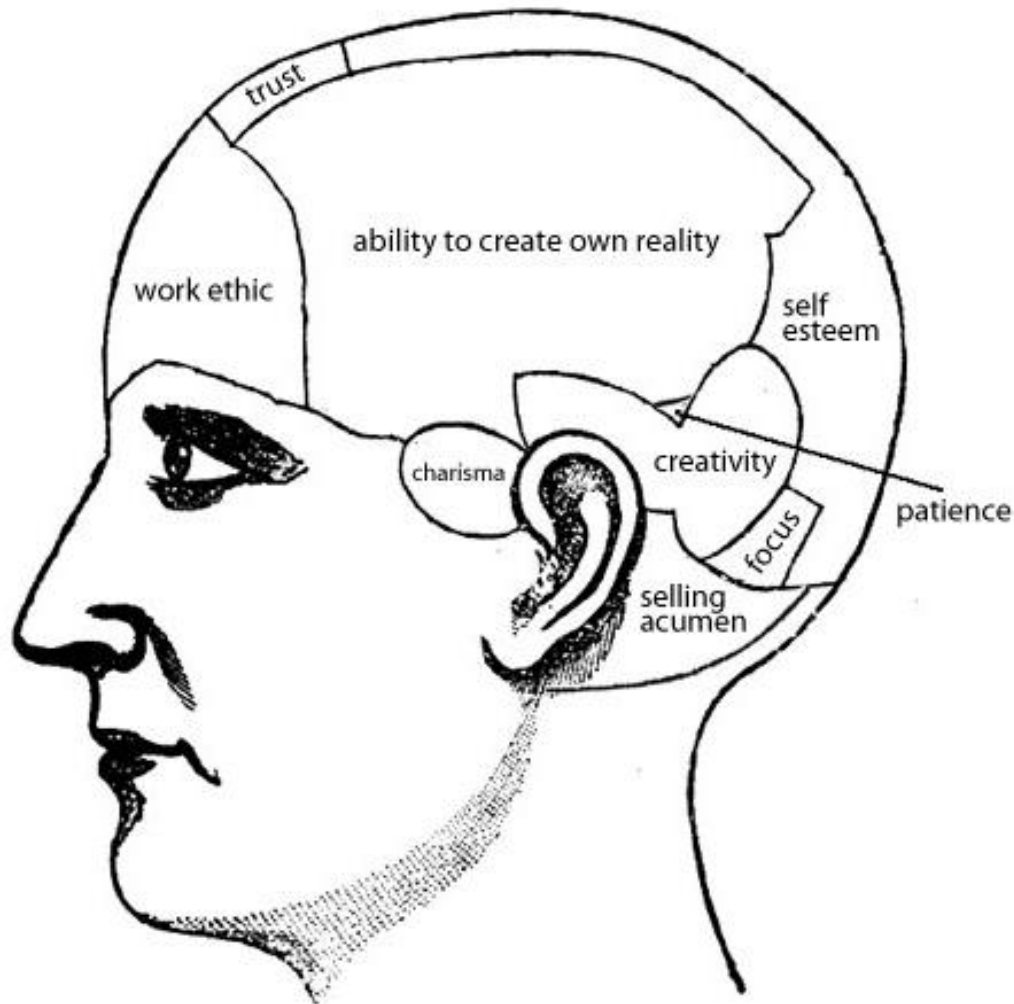
# You Must Wear Many “hats”

--If you plan to integrate technology successfully into your classroom, you must truly be willing to play many roles...



# Entrepreneur!

Phrenology of an Entrepreneur



# Engineer!



# Advocate!



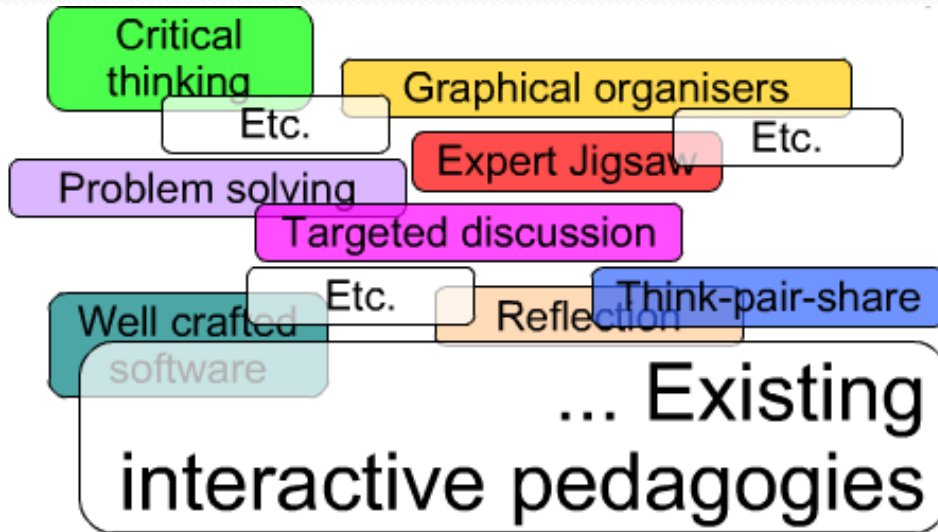
# Technology Repairman!



# Always Have a “Plan B” (and “C”...and...)

--Technology will not miraculously save a badly planned lesson...

--Lessons must continue to be based on sound educational theory and proven interactive pedagogy...



“I have a plan ‘B’, but that’s also dependent on a working projector bulb.”

# How Teachers Might Feel at First...



# Three Levels of Engagement



**Student-Created**  
**Part of Lesson Plan**  
**Novelty / Fun**



# Getting Our Feet Wet...

learn**AR**

- 1.) Go to [www.learnar.com](http://www.learnar.com) on a PC / Mac w/webcam
- 2.) Print marker(s)
- 3.) Hold them up and experience the AR 😊

Introducing learnAR, a learning tool that brings investigative, interactive and independent learning to life!

AR intro: Demo

PE: Arms

Chemistry

Biology: Organs

Biology: The heart

Physics: Radioactivity

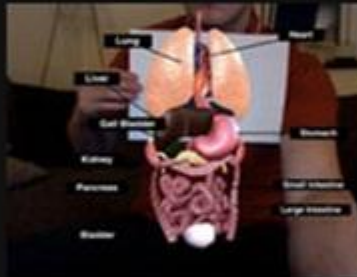
French

Spanish

English

Maths: 3D objects

RE: 5 Ks of Sikhism



Biology: View demo

**Augmented reality (AR)** combines the real world with virtual content using a simple camera such as a digital, video or web camera. This resource was developed by SSAT in conjunction with Smartassess.

All 10 of the learnAR augmented reality resources are available at no charge. All you need is to print the markers from the resource pack pdf (*below*), plug in your webcam and get started. You can see the resources in action at [www.youtube.com](http://www.youtube.com)

This demonstration of Augmented Reality shows the major organs of the body.

What you'll need to see learnAR:



Flash player 10



Correct printed markers - [Download marker PDF here \(4mb\)](#)



A good quality webcam

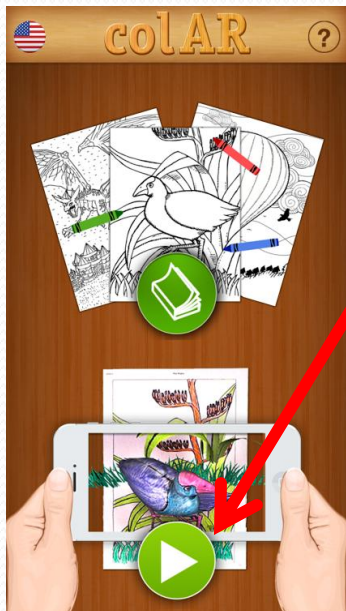


A reasonably fast machine ( 2.4 Ghz, DuoCore, 4GB RAM )

# A Little Deeper...

--Please lay your coloring sheet on a flat surface in front of you.

--Open the ColAR app.



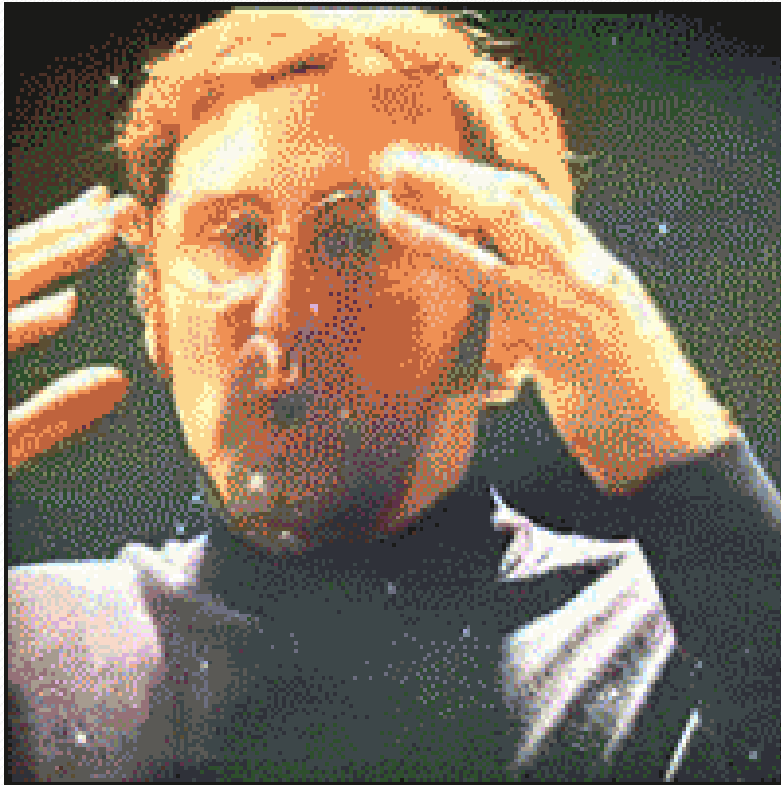
--Click the "Play" button.

--Ensure the entire picture is in the camera's view (it will be blue if you have it correctly).

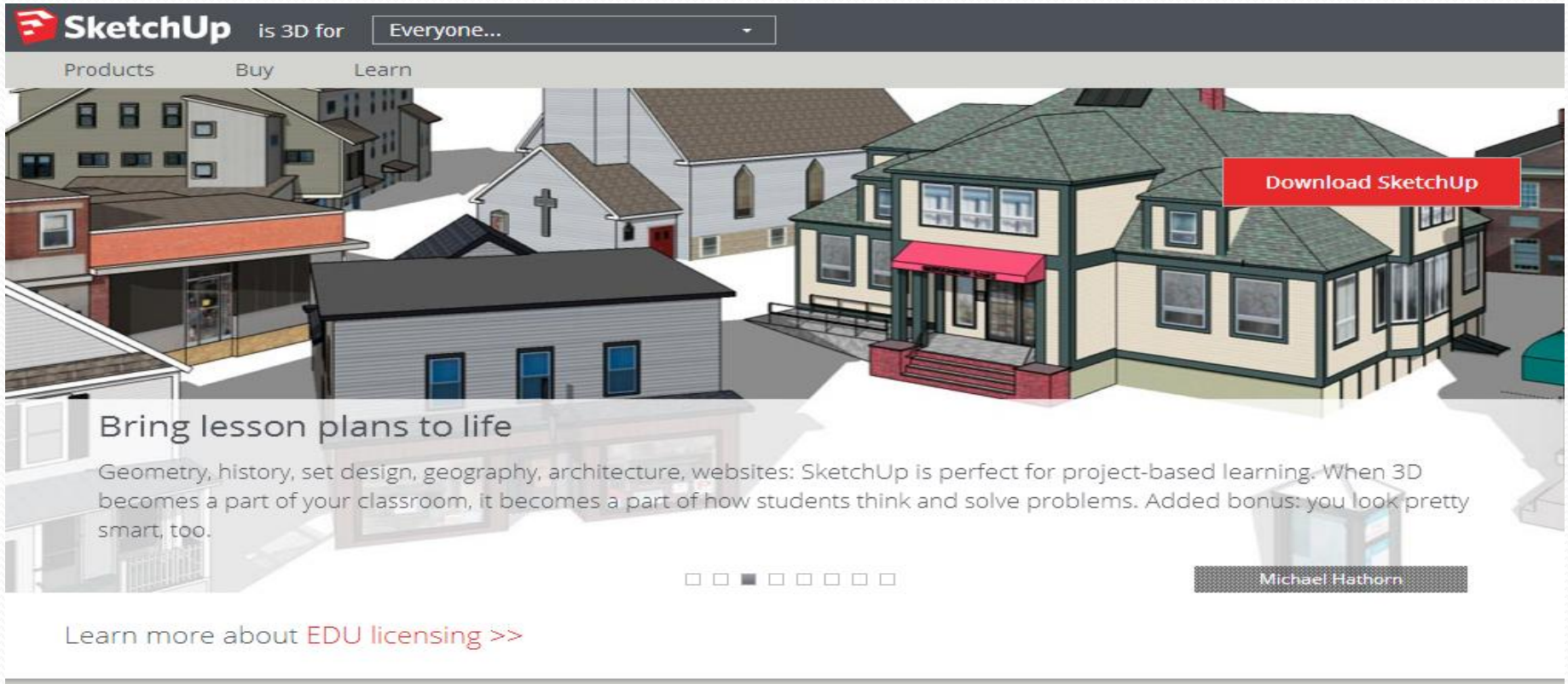


--You may wish to swap with a neighbor!

# How Students Are Probably Feeling Now...



# Customized AR with Trimble SketchUp...



**SketchUp** is 3D for

Products Buy Learn

[Download SketchUp](#)

Bring lesson plans to life

Geometry, history, set design, geography, architecture, websites: SketchUp is perfect for project-based learning. When 3D becomes a part of your classroom, it becomes a part of how students think and solve problems. Added bonus: you look pretty smart, too.

Michael Hathorn

[Learn more about EDU licensing >>](#)

## Summary:

- Program (Windows or Mac)... allows you to create / manipulate 3D models
- Millions of FREE 3D models available for download in the 3D Warehouse!
- Formerly owned by Google (still closely supported by them!)
- With an additional (also free) add-on... can turn any model into AR!

# Relevance? Absolutely!

*“Hundreds of thousands of professionals in (take a deep breath)*

- architecture,*
- construction,*
- engineering,*
- commercial interiors,*
- light construction,*
- landscape architecture,*
- kitchen & bath design,*
- urban planning,*
- game design,*
- film & stage,*
- woodworking,*

*and plenty of other fields use SketchUp Pro all the time, every day.”*



# T.B.A?

**When you are at a PC / Mac and would like to install SketchUp...**

**1.) Peruse the requirements on:**

**<http://www.sketchup.com/3Dfor/k12-education>**

**2.) Click on...**

Educator Licenses

Educator licenses are issued through our official SketchUp Pro partner channel.

To request a license, **please contact an Educational Reseller**

Important Information

- You must be an educator at an accredited educational institution.
- You must also provide a current faculty ID, course syllabus, or other similar document.
- Educator Licenses are free SketchUp Pro licenses that expire.
- Educator Licenses expire one year from the date of generation.
- Educator Licenses can be upgraded to the newest version for free.
- Educator Licenses that have not expired can be upgraded to the newest version for free (original license expiration date applies).
- The same Educator License can be installed on both your desktop and laptop computers.
- Educator Licenses cannot be used for commercial (for-profit) work of any kind.

--Go to Creation Engine's website ([www.creationengine.com](http://www.creationengine.com))

**United States**  
Creation Engine, Inc.  
Educational Sales Only  
425 North Whisman Road, Suite 300  
Mountain View, CA 94043  
Tel: 800.431.8713 or: 650.934.0176  
Fax: 650.934.3234  
E-mail: [sketchup@creationengine.com](mailto:sketchup@creationengine.com)  
Web site: <http://www.creationengine.com>

Filter by Reseller Type:  
 Commercial & Education Resellers  
 Education only Resellers  
 Government Resellers

Greenland  
Iceland  
Finland  
Sweden  
Norway

North Pacific Ocean

# CREATION ENGINE

**Academic Software Discounts for Students, Teachers, Staff, and Schools**  
Nonprofits 501(c)(3) qualify for discounts on these product lines.

--Click on...



**SketchUp Pro 2014**  
**\$49 for Students** (List Price: \$590)  
**Lab and Laptop licenses**  
**Free for Teachers**







--Click "Add to Cart"...follow email instructions to provide them proof you are an educator...and you just got a \$590 program for free. 😊

## SketchUp Pro 2014 Teacher 1-Year License



List Price: \$590

Product	Availability	Part # Mfg SKU	Academic Price	Add to Cart
SketchUp Pro 2014 Teacher 1-year license (download version - available to teachers only, staff & students cannot order) Mac	usually emailed same day	GGD39751	\$0.00	 <a href="#">add to cart</a>
SketchUp Pro 2014 Teacher 1-year license (download version - available to teachers only, staff & students cannot order) Windows	usually emailed same day	GGD39753	\$0.00	 <a href="#">add to cart</a>
SketchUp Pro 2014 Teacher 1-year license with SU Podium Plus V2 Rendering Plug-In (download version - available to teachers only, staff & students cannot order) Mac	usually emailed same day	GGD39761	\$80.00	 <a href="#">add to cart</a>
SketchUp Pro 2014 Teacher 1-year license with SU Podium Plus V2 Rendering Plug-In (download version - available to teachers only, staff & students cannot order) Windows	usually emailed same day	GGD39769	\$80.00	 <a href="#">add to cart</a>

 [View Institution Volume Licensing Prices for SketchUp Pro.](#)



# Onto the Add-On!

**Augment is a program and an app that allows you to convert SketchUp models into 3D augmented reality! And you can get started with the app TODAY!**



Visualize your own 3D models in Augmented Reality and share them with your team members and customers.  
Create interactive print experiences with your own trackers.

**Start by creating a login / password...**



Log in

Remember me

[Forgot password](#)

New to Augment ? Sign up.

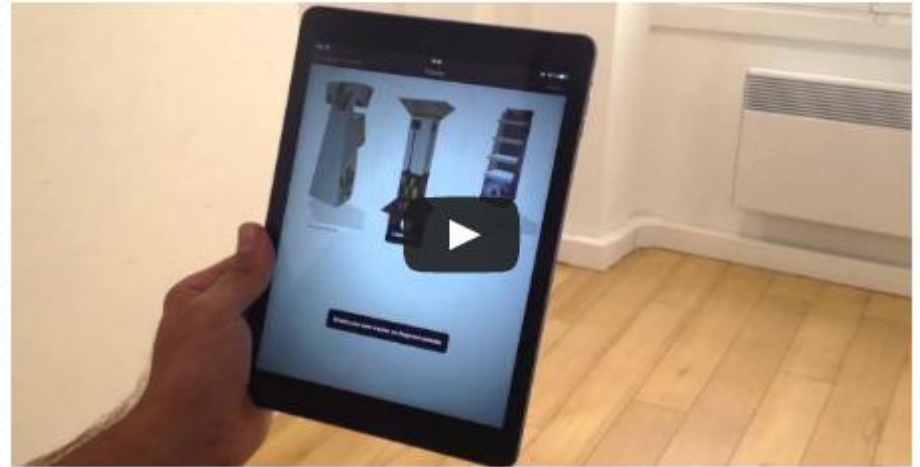
I accept to receive news from Augment

By registering you agree to Augment's [Terms of Service](#)

# T.B.A?

## Getting started with Augment

Read the full article



## Adding a 3D model

General 3D guidelines

Adding a 3D model manually

3ds Max : Installing & using the plugin

Cinema 4D : Installing & using the plugin

SketchUp : Installing & using the plugin

Blender : Installing & using the plugin

Solidworks : Installing & using the plugin

Adding local 3D models (no Augment server required)

Animations

**Click on HELP @ the top, then...**



# T.B.A?

## Sketchup : Installing & using the plugin

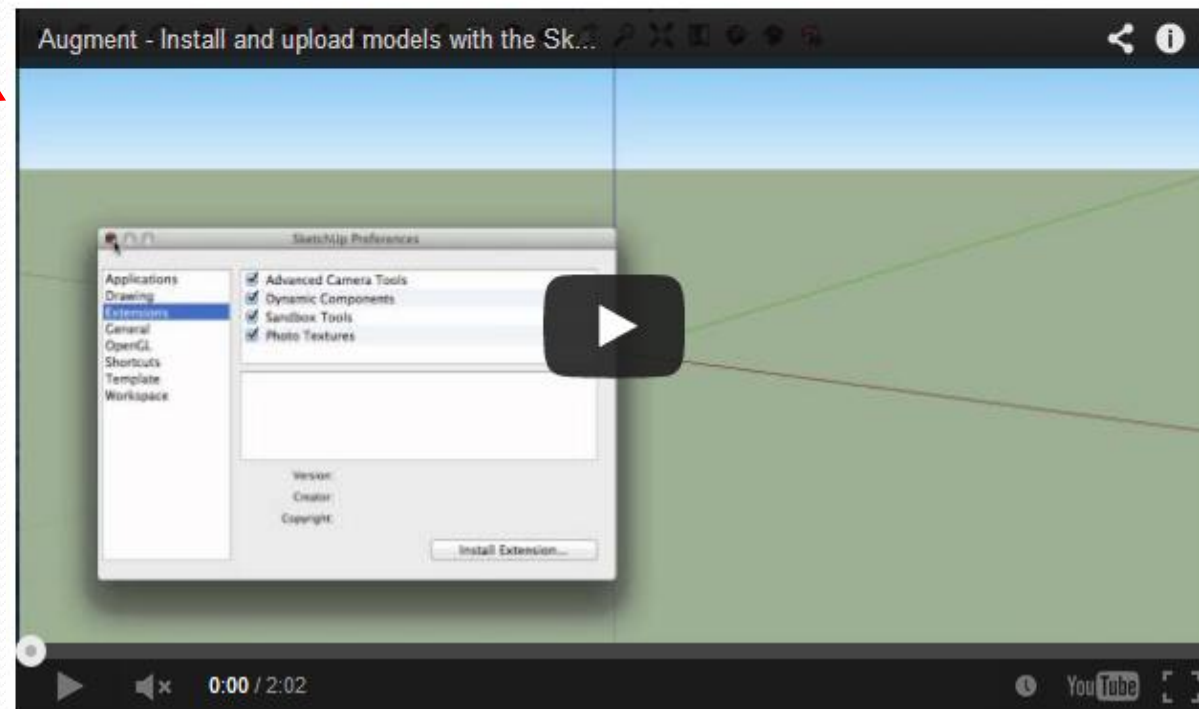
Like Share 0 Tweet 0 Share +1 0

Posted by viviane the 11th June 2014

The Sketchup plugin works on both Mac and PC.

### Installing and using the SketchUp plugin:

- Download the plugin
- Watch this video tutorial to install it, or read instructions below.



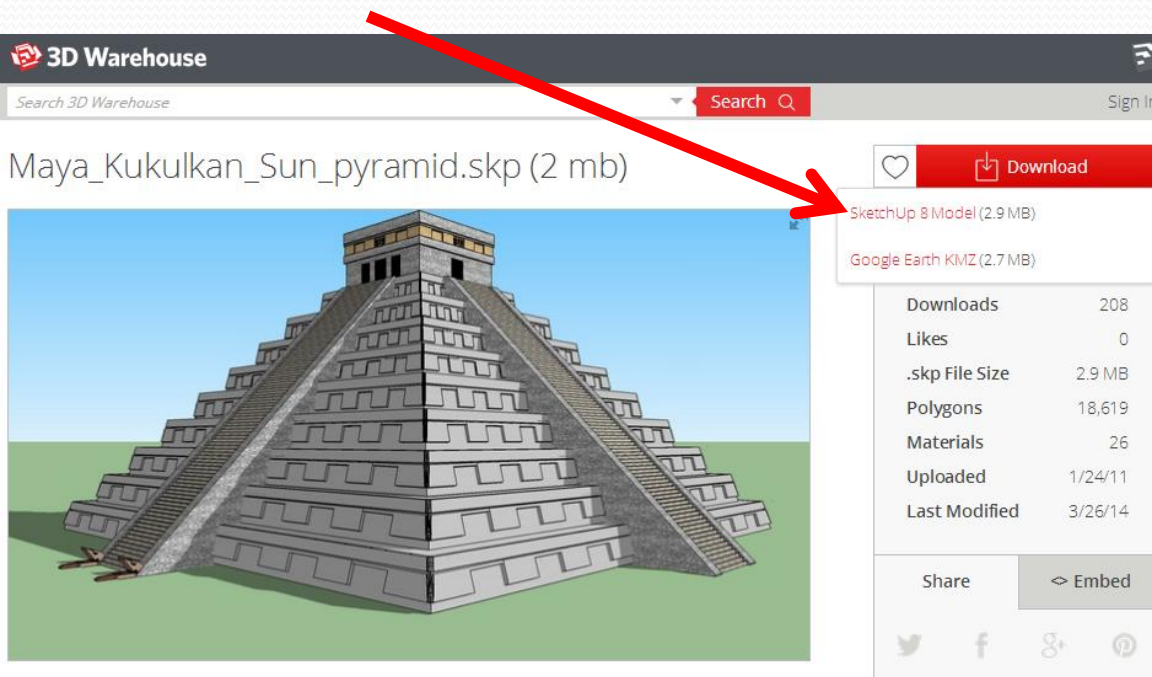
Download the plugin...

Instructions are provided  
by video or step-by-step!



# How to Make Your Own AR!

- Once you have SketchUp and Augment installed, open SketchUp.
- You can open the 3D Warehouse in an internet browser as well.  
<http://3dwarehouse.sketchup.com> (or on your smart device)
- Enter a relevant search in the search bar.
- Download the 3D model...then open it with SketchUp.



# Now to Make Your Own AR!



--Click on "Plugins" then "Augment Uploader"

# Now to Make Your Own AR!

--Click "LogIn" and enter your login info that you entered earlier on the Augment website.

The screenshot shows the Augment application window with the following form fields and buttons:

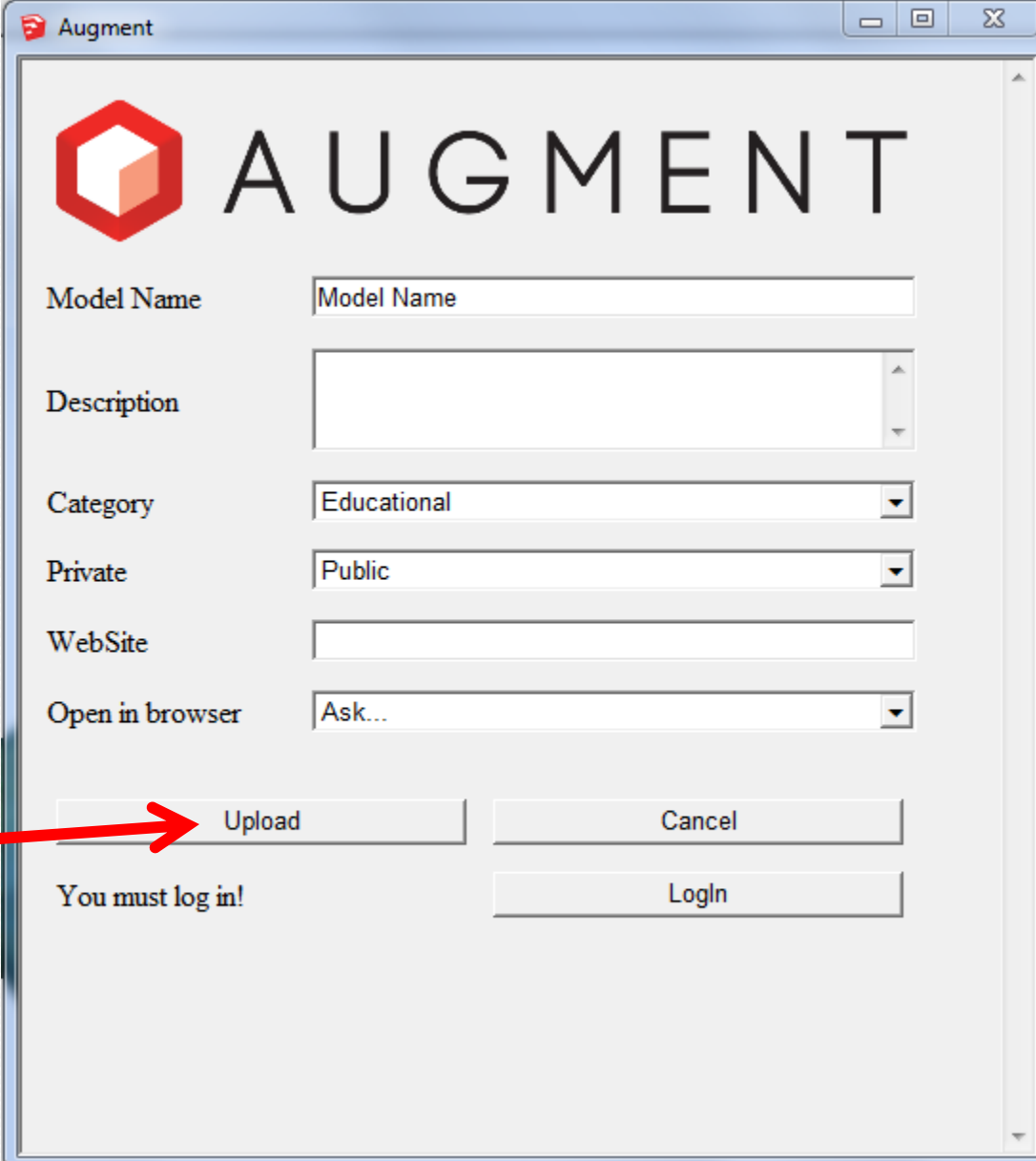
- Model Name:** Text input field containing "Model Name".
- Description:** Text area input field.
- Category:** Dropdown menu with "Educational" selected.
- Private:** Dropdown menu with "Public" selected.
- WebSite:** Text input field.
- Open in browser:** Dropdown menu with "Ask..." selected.
- Buttons:** "Upload", "Cancel", and "LogIn".

A red arrow points from the text on the left to the "LogIn" button.

# Now to Make Your Own AR!

- Type in a name.
- Add a description (if you wish)
- You can leave the category as “educational”
- Choose “Public” for privacy

Don't worry about the rest of the settings. Click Upload!



The screenshot shows the Augment web interface. At the top, there is the Augment logo (a red hexagon with a white cube inside) and the word "AUGMENT" in large, black, sans-serif capital letters. Below the logo, there is a form with the following fields:

- Model Name:** A text input field containing the placeholder text "Model Name".
- Description:** A large text area for entering a description.
- Category:** A dropdown menu with "Educational" selected.
- Private:** A dropdown menu with "Public" selected.
- WebSite:** A text input field.
- Open in browser:** A dropdown menu with "Ask..." selected.

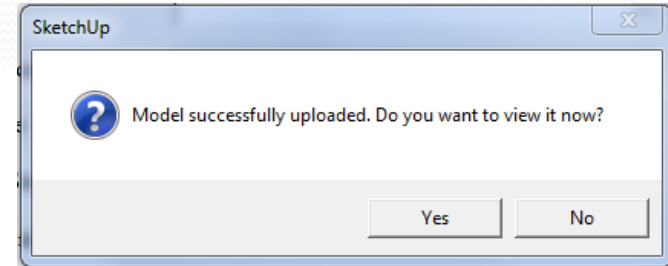
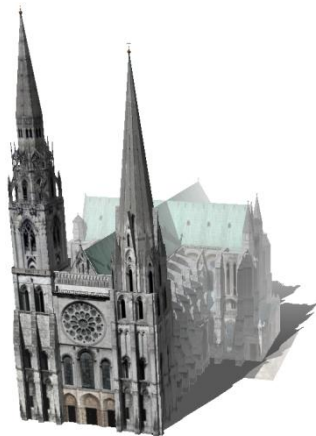
At the bottom of the form, there are two buttons: "Upload" and "Cancel". A red arrow points from the text "Click Upload!" to the "Upload" button. Below the "Upload" button, there is a message "You must log in!" and a "LogIn" button.

# Now to Make Your Own AR!

--Augment Uploader will work its magic and then ask if you wish to view it...after all this setup, you probably should click “Yes.” 😊

Visualize 'Notre Dame'  
in Augmented Reality

Launch Augment & Scan this Flash Code



--Open the “Augment” app on your phone / tablet and tap “Scan” while pointing the camera at the QR code. It will take a moment to download the model.



# How to Present to Students!

- Copy the QR code and paste it into a presentation (students aim @ screen)
- Copy and paste the QR code into MS Word and create a poster  
(*walking tour?*)



# FYI / Word of Caution...



--QR codes are temporary...no laminating the posters to last forever. ☹️



--You CAN “rinse and repeat” the process to quickly insert a new QR code into the MS Word poster.

# The Holy Grail of AR...

- Please go to [www.aurasma.com](http://www.aurasma.com) on your smart device.
- Click on the tab “Customers” @ the top of the page and “Apply Now.”



Search...

[Campaigns](#) \ [Customers](#) \ [Auras](#) \ [News](#) \ [About Us](#)

## Become a Customer

Sign up to the Aurasma Studio and start publishing your own augmented content today.

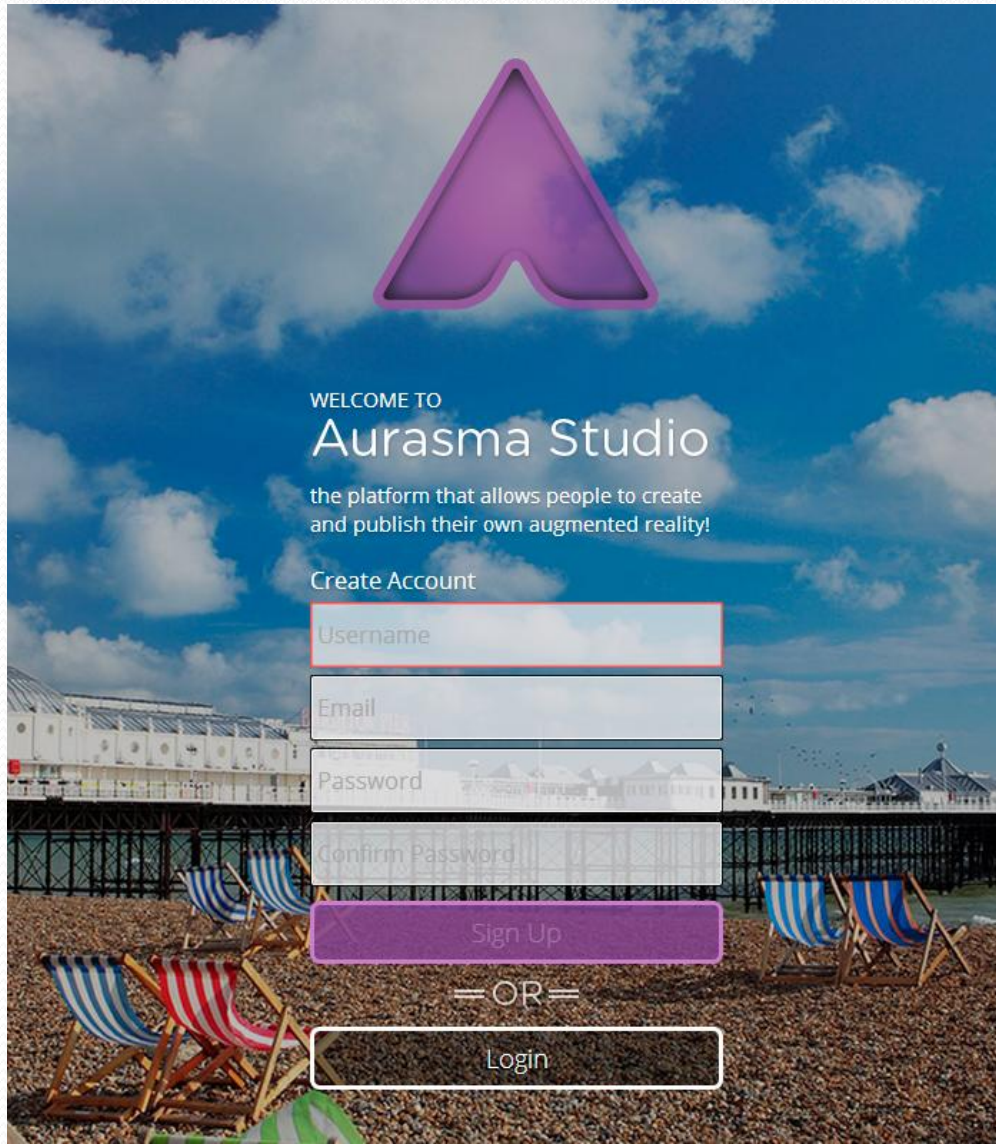
From teachers bringing pupils' artwork to life in schools through to the world's largest brands and agencies delivering award-winning advertising campaigns, the cloud-based Aurasma Studio lets you create and share augmented content and apps quickly and easily.

\ Would you like to become a customer?

[Apply Now >](#)

[Frequently Asked Questions >](#)

--Please take a moment to fill in the relevant info to create an account.

The image shows a registration form for Aurasma Studio overlaid on a background image of a beach with deck chairs and a pier. At the top center is a large purple arrow-shaped logo. Below it, the text reads 'WELCOME TO Aurasma Studio' followed by 'the platform that allows people to create and publish their own augmented reality!'. Under the heading 'Create Account', there are four input fields: 'Username', 'Email', 'Password', and 'Confirm Password'. A purple 'Sign Up' button is positioned below these fields. Below the button is the text '= OR =' and a white 'Login' button with a black border. The background image shows a beach with several striped deck chairs in the foreground and a pier extending into the sea under a blue sky with white clouds.

WELCOME TO  
**Aurasma Studio**  
the platform that allows people to create  
and publish their own augmented reality!

Create Account

Username

Email

Password

Confirm Password

Sign Up

= OR =

Login

# A Quick Intro...

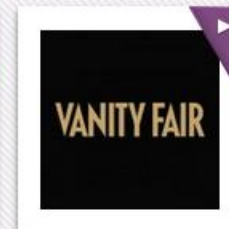
--Please open your Aurasma app and have it at the ready!



## **Augmented Reality For The Classroom**

Prezi content and design by: Matt Hollowell; owner, Hello Social, LLC.  
Contact: [matt@hellosocialmarketing.com](mailto:matt@hellosocialmarketing.com); 615-686-1477.

## \ Our Customers Include:



## Become a Customer

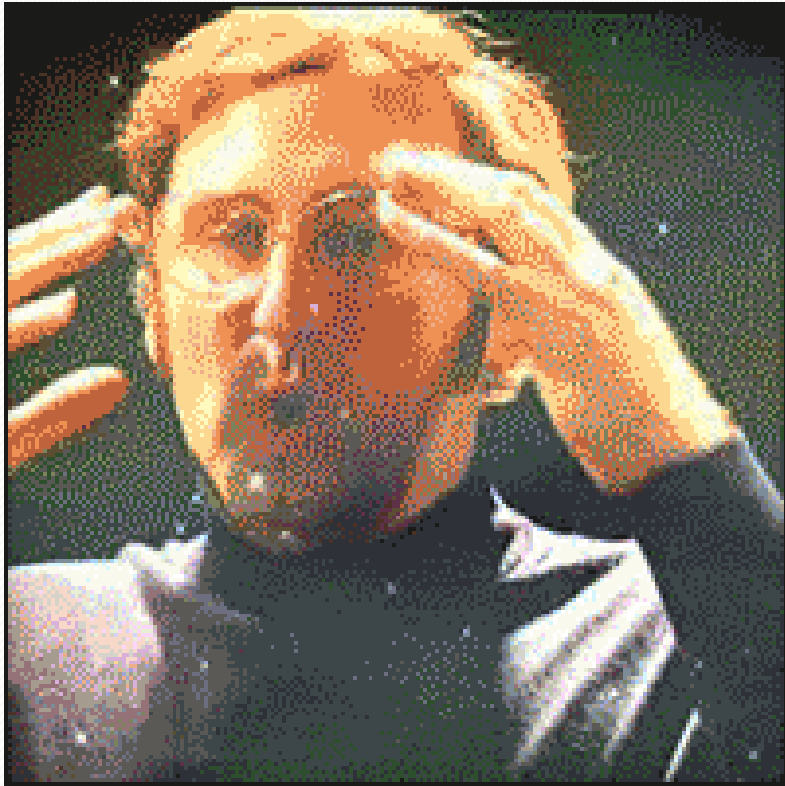
Sign up to the Aurasma Studio to create and publish your own augmented reality content.

Apply Now >

# You Think THAT'S Interactive?!

--What does the future hold for Augmented Reality?







# Final Thoughts...

SOME MEN SEE THINGS AS  
THEY ARE AND SAY WHY.  
I DREAM THINGS THAT NEVER  
WERE AND SAY WHY NOT?

*Robert F. Kennedy*

**It is really up to us to make our own “connected classroom” a reality.**

**The truly inspired uses of technology like we have seen all day at this conference are the result of educators thinking outside the box.**

**Ultimately, educators will only incorporate new techniques and technology that they find useful. My purpose today was to help empower not only you, but your students to take this technology to new levels.**

# Contact Info:

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[ahaak@holton.k12.mi.us](mailto:ahaak@holton.k12.mi.us) (*yes, the long format still*) ☺

Website → <http://teechur.weebly.com> (*no “www”*)

Twitter → @andrew\_haak