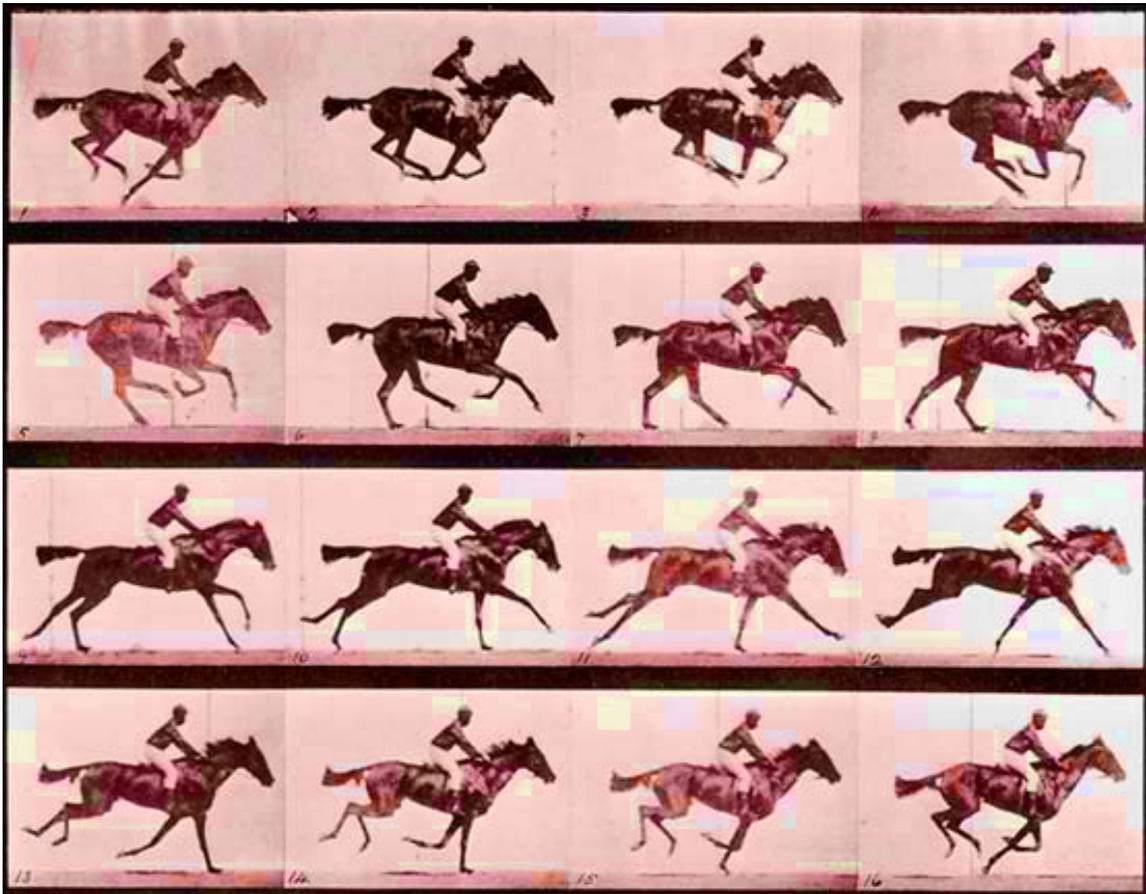


# Art 335: ANIMATION WORKSHOP



Prof. Douglas Tyler

Spring 2020

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**COURSE OUTLINE: ANIMATION WORKSHOP  
ART 335**

"Whatsoever that be within us that feels, thinks, desires, and **animates**, is something celestial, divine, and, consequently, imperishable."

**Aristotle**

**Instructor:** Professor Doug Tyler

**Office:** 330 Moreau Hall

**Office Hours:** Monday/Wednesday 9:30 - 11:00 (Please note that I am often in my office or somewhere in Moreau Hall in the afternoon on MWF. Phone/text to see if I am in or stop by.)

Tues./Thurs. 8:00 - 8:30 and 1:00-1:30

Friday By appointment or stop by/phone to see if I am in !

**Communications:** I am not at a computer as often as would be ideal. Please don't hesitate to call me at home or in my office if you need to reach me. Please leave a message with your phone number if I am not in.

**Phone numbers:** Office: 284 - 4621  
Home: 269 - 683 - 0934 (Niles) a long distance number but toll free

**Email:** dtyler@saintmarys.edu

**Lab assistants:** Hailen Jerkovic, Chief Assistant  
Hannah Toepp, Marta Antonetti, Brynne Elick, Assistants-to-the-Chief

**Course Description:** <https://catalog.saintmarys.edu/search/?search=Art+335>

**Course Goals:** To introduce the student to the techniques and aesthetic principles involved in various modes of animated imagery and to develop within her the level of expertise necessary to employ these in creating her own animated artworks. Students will gain knowledge of the historical roots of contemporary animation and experience the work of contemporary artists working in the medium while enhancing their discernment of and appreciation for animated works of art.

**Implementation:** Technical information will be provided through a combination of approaches including, but not limited to, class lectures, readings, laboratory demonstrations and on-line tutorials. This information will be applied by the student to work executed to meet specific problems posed in course assignments. The aesthetic dimensions of digital photography will be discussed along with the technical and will receive special attention during periods devoted to the history of animation and the discussion of student works.

Evaluation: The student's final course grade will be based upon the accumulation of achievement points earned during the semester. Achievement points being awarded for evaluation may include, but shall not be limited to, points for participation in course activities, points for course and special events attendance, points for written and visual assignments, points for attendance and scores from any tests or quizzes administered during the semester. In addition, each student will be required to submit a portfolio of their work at the end of the semester for which points will also be awarded. Criteria for the presentation of this portfolio will be provided in class.

Proposed point distribution

A. 5 - 8 photo assignments & exercises	200 points
B. Class participation	100 points
C. Attendance grade	100 points
D. Papers/quizzes	100 points
E. Final portfolio	500 points

Attendance and Late Assignments: Late assignments will be **devalued 10 achievement points** for each day they are past due. Late assignments will be evaluated at midterm and during final portfolio evaluation or at the discretion of the instructor.

Attendance is mandatory and achievement points will be awarded for each class meeting you attend. Achievement points may also be awarded for attending events / exhibitions specified by your instructor. Because of the special nature of demonstrations required for this course all students will need to be present at the beginning of class. Any student not present at the beginning of the class or when roll is taken will be considered absent from it. ***Any student who misses more than 7 class meetings (except for major medical/family reasons) will automatically fail this course!*** Course content will not be repeated for unexcused absences.

Attendance at all critiques is also MANDATORY. Unexcused absence from any critique will result in the **loss of 50 achievement points**.

NOTE: If this is an evening course trips to museums and galleries would need to be made outside of class. In this event, class time will be cut to compensate for the time applied toward the field trip.

MY GENERAL GRADING SCALE:

You tried and made primarily **thoughtful** decisions:

A (90 – 100% of possible achievement points)

You tried and made **some** thoughtful decisions

B (80 – 90% of possible achievement points)

You tried but **didn't make** many thoughtful decisions

C (70 – 80% of possible achievement points)

You tried somewhat and made **some bad** decisions

D (60 – 70% of possible achievement points)

You didn't try and you didn't **think**

F (0 – 59% of possible achievement points)

FINAL GRADE POINT SCALE:

900-1000 POINTS = A

800-900 POINTS = B

700-800 POINTS = C

600-700 POINTS = D

599 POINTS OR LESS = F

ART 335 ANIMATION WORKSHOP

ASSIGNMENT NO. 1 PRIMITIVE BUT POWERFUL (SIMPLE ANIMATIONS)

"The trouble with success is that it always comes disguised as hard work"

source unknown

"**Animation** is about creating the illusion of life. And you can't create it if you don't have one."

Brad Bird (Oscar, best animated feature, 2005)

**The Problem:** Early animators struggled with developing techniques for making the still image move. Faced with a new visual language with few if any rules they had to develop a vocabulary and syntax which permitted them to communicate/express their thoughts/feelings to their audience. Despite the challenges and awkward characteristics that these artists faced they were still able to construct convincing artworks that still speak to us today in truthful and powerful terms. In this assignment you will employ several of these early animation techniques in order to establish visual statements.

**Assignment:** Create the following simple animations using the techniques described in class. Some of the final output for this assignment will be in digital form and some will be physical. By their nature each of these animations will be cyclical in character. In other words, the first and last frame of each animation will be identical. Consider this cyclical character in establishing the conceptual framework for your animations.

- 1.) *Digital Thaumatrope* - Create a series of three self-portraits in the form of digital thaumatropes. You will use images of yourself recorded on your computer using the Photo Booth program on your MAC desktop. The final animations will be constructed in Photoshop and you will submit your three completed images as animated "gif" files.
- 2.) THREE-D Animated GIF - Create a simple three-D animated gif of a common object. You will employ a special camera and software for this micro project.
- 3.) *STICK FIGURES* - Using the "Stykyz" animation program available for free as a web download ( <http://www.stykyz.net/> ) construct an animated 10 second sequence that employs a stylized character involved in a cyclical event as the conceptual foundation for your work. Consider for example the expressive opportunities offered by cycles such as that of human moods, a character on a merry-go-round or carnival ride, etc. Simply illustrating the cycle is not what is desired here but rather some expressive use of the cycle. A list of STYKYZ tutorials is available in the NOTES section at the end of this handbook.

**Readings:** History of Animation, Wikipedia ([http://en.wikipedia.org/wiki/History\\_of\\_animation](http://en.wikipedia.org/wiki/History_of_animation)). Read parts 1 and 2.  
Before Mickey: The Animated Film 1898-1928, Donald Crafton, University of Chicago Press, 1993  
History of Animation, Walt Disney Studios (Video) presented in class

There is a wealth of information on the early history of animation available on the web that you may want to consider. Please also consider reviewing materials that have placed on reserve in the library.

**Objectives:**

1.) To learn the basic mechanical and psychological concepts of the animated image.

key concepts:           Timing  
                              f.p.s. (frames per second)  
                              Persistence of vision (a.k.a. critical flicker fusion)  
                              storyboards  
                              animation systems  
                              timing

2.) Experiment with early animation tools and techniques to appreciate the simple efficacy of these.

3.) Explore the rudimentary principles of motion in animations.

4.) Gain an appreciation for major historical events in the early history of animation. Discuss the importance of technical innovation in these early years.

**Evaluation:** Your work will primarily be evaluated according to the following criteria.

1.) Demonstration of sensitivity to and skill in the use of materials and processes involved in the assignment. Evidence of personal effort will be important in evaluation of all your assignments in this course.

2.) Originality and creativity in response to the various parameters of the assignment, especially that of visual experimentation, composition and concept development. Have you brought your imagination to bear on the assignment?

3.) General craftsmanship as demonstrated in the final works submitted for evaluation. Hint: keep it clean!

4.) Evidence of the awareness and application of principles and concepts presented through any assigned readings in the course text or other sources.

DUE: \_\_\_\_\_ (at the beginning of class)

ASSIGNMENT NO. 2 PRIMITIVE BUT POWERFUL (SIMPLE ANIMATIONS: PART II)

"The illiterate of the future will be ignorant of pen and camera alike"

Lazlo Moholy-Nagy

"I would advise young designers and artists not to be seduced by the tools - whether they are computers or traditional mediums. I try to encourage people to learn the basics first, learn the foundation skills of good drawing and design, learn color theory and composition, things that are taught in beginning art classes. You can never master them enough".

Doug Chiang, Visual Effects Art Director, Industrial Light and Magic

**The Problem:** Much of today's more advanced animated imaging technology is highly complex and often distances the artist from a more direct interaction with the development of their images and ideas. As the preceding assignment demonstrated however, there are still simpler and more direct ways to establish a dynamic animated image. Among these is direct drawn animation where the artist places their marks directly upon film stock that is then projected to animate the frames of the film.

**Assignment:**

**A. DIGITAL DRAWN ANIMATION (frame painting)** - Create a short (30 second) direct drawn animated film designed to respond to a preselected sound. Your animation will be designed to respond to the sound you select but will not necessarily be synced to it. Note that you may employ musical content for your sound but you may also employ non-musical audio as well.

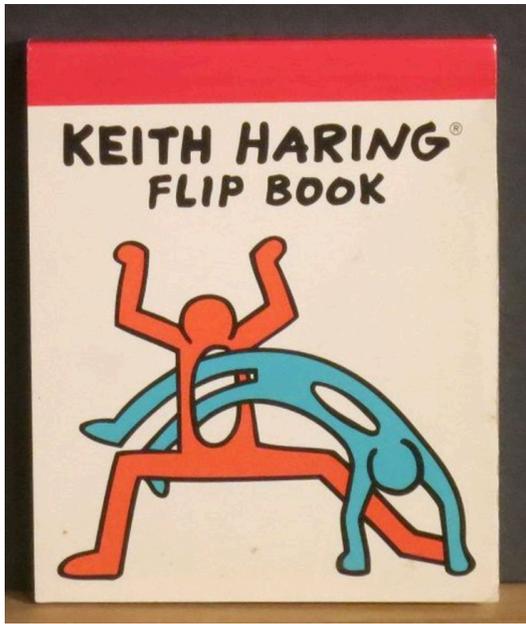
**B. FLIP BOOK FANTASY (SIMPLE LINES)** – You will construct a short (25 frame/page) flipbook that employs line to create the contour of a popularly known iconic pop culture artifact. You might employ the image of a popular rock guitar, an Elvis face, a cult toy, etc. Your images may only employ a single line with a definitive beginning and end. I will show you some examples of flip books by previous students and some historical reconstructions. Check out these flip book recreations by the very well known 80's artist Keith Haring and others:

<https://vimeo.com/298477349>

<https://art-sheep.com/hole-punch-flipbooks-by-scott-blake/>

[https://www.youtube.com/watch?v=bON3\\_IHuhC4](https://www.youtube.com/watch?v=bON3_IHuhC4)

[http://www.barcodeart.com/Blue Dream Flipbook.html](http://www.barcodeart.com/Blue_Dream_Flipbook.html)



**C. DIRECT DRAWN ANIMATION** - You will be working as a group to create a 60 second hand-drawn animated image on film. To create this animation you will be using 16mm leader stock provided to you in class. We will attempt to have this animation digitized so that it may be combined with sound for final presentation. This portion of your assignment will not be graded. Your class will create a collaborative animated work that explores the theme of opposites/ dichotomies. Each of you will work consecutively based on a random selection process. The final design will be defined as a compilation of your individual responses - though you may wish to respond to the elements created by those who have worked before you.

NOTE: in creating these images you should consider the following possibilities for working upon the film materials that will be supplied to you. You may want to think about a title.

- 1. markers may be drawn directly on the film. Be sure that the marker you use is permanent or your image may be rubbed off the film during projection.*
- 2. The white base on the film may be scratched away with a sharp stylus or sanded w/sandpaper*
- 3. The film may be covered with a layer of color and the final image created by scratching through this color to the film base below.*
- 4. old film may be incorporated into the image and be painted upon, scratched or otherwise manipulated for visual effect.*
- 5. Anything else you can think of . . . cut loose and have some fun!*

**D.** From the galaxy of past animated artworks select the work of one artist whom you especially admire and write a brief paragraph regarding the aspects of that work which you most admire.

**Objectives:**

1. To continue investigating the powerful expressive potential of simple direct animation techniques.

Key concepts:                    film leader (stock)  
   collaboration  
   synchronization

2. To explore with greater sensitivity the powerful relationship of imagery to sound in the animated work of art. You will be introduced to simple sound generating software.
3. To begin
4. To demonstrate that the medium of cinematography is not synonymous with cameras and camera equipment. Cameras are not necessary for making films . . . light is!

**Evaluation:** Your work will primarily be evaluated according to the following criteria:

1. Demonstration of sensitivity to and skill in the use of materials and processes involved in the assignment with sensitivity to the application of concepts discussed during class.
2. Originality and creativity in response to the various parameters of the assignment, especially that of visual experimentation and composition.
3. General craftsmanship as demonstrated in the final works submitted for evaluation. **HINT: keep it clean**
4. Evidence of the awareness an application of principles and concepts presented through any assigned readings in the course text, lectures or other sources.

**Readings:**

History of Animation, Wikipedia

([http://en.wikipedia.org/wiki/History\\_of\\_animation](http://en.wikipedia.org/wiki/History_of_animation)). Read part 3.

Read more about the work of Len Lye and Norman McLaren, seminal figures in the development of early animation. Both of these artists did extensive work drawing directly on film stock. Check these links and look at their work on **YouTube**:

[http://en.wikipedia.org/wiki/Len\\_Lye](http://en.wikipedia.org/wiki/Len_Lye)

[http://en.wikipedia.org/wiki/Norman\\_McLaren](http://en.wikipedia.org/wiki/Norman_McLaren)

DUE DATE: \_\_\_\_\_ (AT THE BEGINNING OF CLASS -FOR CRITIQUE)

ASSIGNMENT NO. 3

STOP ACTION ANIMATION / FRIGHT FILM TITLE

"Animation is not going to be just about entertainment. There are incredible things that can be done with 3D technology in preventative medicine, sports and many cross-cultural applications. Animation is not just about Mickey Mouse. It can actually make the world a better place."

Robin King

**The Problem:** There are a broad variety of animation techniques, many much better known than others. One of the better known of these animation techniques comes under the category/name of Stop Motion (sometimes referred to as frame by frame animation, stop action animation, et al). In the various iterations of this animation process individual frames for the work are created by the artist using various techniques such as painting, collage, photo tracing, etc. The amazing flexibility of this approach to animation accounts in part for its wide usage. When integrated with the expanded range of digital imaging options the "Stop Motion" approach becomes even more appealing for animation artists.

**Assignment:** Many feature films employ animation or partial animation content in the titling process. Some well known examples are the title to David Lynch's 1977 film *Eraserhead*, Brad Peyton's lighthearted film *Cats and Dogs: The Revenge of Kitty Galore*. The use of animation to introduce various types of film content is testament to its expressive power. There are in fact some writers and websites that are dedicated solely to the art of film titling and animation in film titles.

**A. BIRTH OF A CHARACTER (CLAY MORPH)** – You will need to purchase a small quantity of plasticine clay or Play Dough for this project. Using the clay material create a short stop-motion animation (15-30 seconds in length) that features the evolution and definition of your own unique animation character. Note that this is not a modeling project. Your character may be very elaborate or very simple structurally. What is important is that the final character be expressive and that their evolution reflect your creative capabilities.

**B. FRIGHT FILM TITLE** – Using the digital tools and approaches that have been presented in class create a 30 second title for George Romero's well-known 1978 fright film *Dawn of the Dead* (the film will be presented to you in class). The audio track for your title sequence will be provided to you. You may use any stop motion technique (or combination of techniques) presented to you for this assignment. Your final assignment will be submitted in the form of a .mov file and if time permits we will employ Adobe Aftereffects.

**C. TITLE REVIEW** – Select an animated title from an existing film (the film itself need not be an animated production) which you have accessed over the web or have access to on DVD. Write a brief three page review of the title discussing the techniques employed, expressive

effects, relationship to the film and finally an assessment of the overall effectiveness of the work. You must provide a cover sheet for this paper in which you include your name, class name, assignment name (Title Review) and instructor's name.

**Objectives:**

1. To begin to explore and experiment with the rich range of stop motion animation techniques available to visual artists. You will be familiar with such techniques as rotoscoping, claymation, collage animation, frame by frame, et al.

Key concepts:                    stop motion animation  
    rotoscoping  
    claymation  
    Academy leader

2. To investigate the rich legacy of animation in the process of titling motion pictures.

3. To apply compositional skills and concepts in the creation of photographic/cinematic imagery, focusing especially on the unique aspects of the animator's vision.

4. To discuss the expanded range of venue's for the presentation of contemporary animated works of art.

**Evaluation:** Your work will primarily be evaluated according to the following criteria:

1. Your ingenuity and thoughtfulness in the development of your concepts and imagery in the assignment along with your use and development of methodologies and techniques presented during class.

2. Originality and creativity in response to the various parameters of the assignment, especially that of visual experimentation and composition. Avoid clichés and the "predictable" whenever possible.

3. General craftsmanship as demonstrated in the final works submitted for evaluation. **HINT: keep it clean.** Do your files work correctly, are they properly presented, etc.

4. Evidence of the awareness and application of principles and concepts presented through any assigned readings in the course text, lectures or other sources.

**READINGS:** Kevin Kelly, A brief History of Stop-Motion Animation:  
<http://www.slashfilm.com/geekbomb-a-brief-history-of-stop-motion-animation/>

Clay Animation, Wikipedia: [http://en.wikipedia.org/wiki/Clay\\_animation\\_-\\_History](http://en.wikipedia.org/wiki/Clay_animation_-_History)

The Junky's Christmas:  
[http://www.openculture.com/2010/12/william\\_s\\_burroughs\\_claymation\\_christmas\\_film.html](http://www.openculture.com/2010/12/william_s_burroughs_claymation_christmas_film.html)

DUE DATE: Final assignment will be due \_\_\_\_\_ (at the beginning of class)

ASSIGNMENT NO. 4 ANIMATION IN 3D: THE HOLOGRAM AS ANIMATION DEVICE

"three-dimensional image reproduced from a pattern of interference produced by a split coherent beam of radiation (as in a laser); *also* : the pattern of interference itself."

Merriam-Webster

**The Problem:** The essential technical tenants of animation have not changed dramatically since the earliest practice of the art form. Single images recorded either by the camera, drawn by the hand or generated by computer are presented rapidly before the eye and fuse into one. Even contemporary 3D (stereo) animation relies on this basic principle, it simply presents an extra image to each eye to produce a simulated sense of space. In the holographic image however everything is recorded that appears before the recording material. So comprehensive is the medium that the images it produces can seem dream-like in their accuracy of detail, much like the earliest photographs must have appeared in the mid 1800's. Like earlier visual imaging technologies holography permits the artist to animate content adding multiple dimensions of time to the medium.

**Assignment:** In this fourth workshop project we will explore the visual opportunities for animation posed by the evolving and very cutting edge medium of holography. You will be creating one holographic image which contains multiple visual experiences. Prior to recording your hologram you will review information on the basic principles of holography and view a demonstration of a holographic recording session

**A. Alice in Wonderland** – In his now famous non-sense genre novel Charles Lutwidge Dodgson (a.k.a. Lewis Carroll) through his heroine Alice takes us on a mind-bending journey (psychedelic trip?) through Wonderland. During her journey Alice experiences many nonsensical characters and environments. After reading the assigned chapter in *AinW* construct models for two holographic recordings which reflect a nonsensical situation which you have experienced. The models must be constructed in strict adherence to the technical guidelines given for the assignment.

**B.** We will watch Tim Burton's 2010 remake of *Alice in Wonderland*. You will write a brief (one page) paper (?) offering your suggestion on how to improve this feature length hybrid (filmed and animated) motion picture. Your suggestions for enhancement may involve any single dimension of the production (audio, set designs, editing, etc. or a combination thereof). We will also discuss the inaccuracies of this version of *AinW* (see this website for more: <http://ancientorient.blogspot.com/2010/03/alice-in-wonderland-vs-through-looking.html>)

**READINGS:** *Basic Holography: A short Primer*, D. Tyler, Holy Kow Press, Niles, Michigan 49120

*Alice's Adventures in Wonderland* (<http://www.literature.org/authors/carroll-lewis/alices-adventures-in-wonderland>). Please read chapter ? (or have them animate a chapter of their choosing).

**Objectives:**

- 1.) To expand our knowledge and awareness of advanced animation formats.
- 2.) To begin exploring the role of point-of-view in the creation of animated artworks and in particular its potential use in realization of concept as well as impact on composition.
- 3.) To explore the various techniques for controlling and manipulating lighting in the holographic image, including such considerations as exposure, development and presentation controls.
- 4.) To investigate multi-dimensional approaches to animation that extend beyond the traditional two-dimensional approaches to the medium.

**Evaluation:** Your work will primarily be evaluated according to the following criteria.

- 1.) Demonstration of sensitivity to and skill in the use of materials and processes involved in the assignment.
- 2.) Originality and creativity in response to the various parameters of the assignment, especially that of visual experimentation and composition.
- 3.) General craftsmanship as demonstrated in the final works submitted for evaluation. Hint: keep it clean!
- 4.) Evidence of the awareness and application of principles and concepts presented through any assigned readings in the course text, lectures, demonstrations, or other sources.

**DUE DATE:** at the beginning of class on \_\_\_\_\_.

ASSIGNMENT NO. 5 INTERACTIVE ANIMATION

“My favorite thing is to go where I’ve never been”.

**Diane Arbus**

"All cartoon characters and fables must be exaggeration, caricatures. It is the very nature of fantasy and fable.”

**Walt Disney**

**The Problem:** Contemporary animation offers artists territory to explore that was previously unimaginable. For most of the history of animation the artist addressed their audience solely through images and audio. The direction of communication was singular (linear) in nature. In the digital age artists frequently “interact” with their audience (sometimes in real time) using multiple channels operating in multiple directions (non-linear), sound has become more sophisticated, and a variety of new “portals” for presentation of the artist’s work are available (DVD, internet, gaming, etc.). This expanded offering empowers the animation artist with unprecedented expressive latitude.

**Assignment:** In this fifth assignment we will explore the expressive potential of interactive animation using the multimedia capabilities of “Flash” software. You will create THE following short animations:

**A. single step animated game** – you will be given some basic script/code for a single step game which you will modify to incorporate your own content and expressive interests. Although this is a simple game the intent is to use it as a platform for expressing yourself.

**B. My own Avatar** – you will design and construct an interactive flash animation in which you explore the story of a fictional character which you create (avatar) and which embodies all the qualities of a cultural super-SHEro. Your animated work may take the form of a game, an informational website, biographical sketch, etc. You are free to choose what form you wish to work in but your overall content must incorporate interactive multimedia features as discussed in class and must employ animated content (no static websites, etc.). As an aid in developing your initial concept you may want to look at flash works on the web. You may find some of these Flash movies interesting:

<http://www.jkrowling.com/en/popupblocked.cfm>

[http://ge.ecomagination.com/smartgrid/#/landing\\_page](http://ge.ecomagination.com/smartgrid/#/landing_page)

<http://www.redbullsoapboxracer.com/>

<http://www.flashcartoons.org/Games/zombiecity.html>

<http://www.liliaplanet.com/>

**Objectives:**

- 1.) To extend the multi-dimensional explorations of animation begun in the previous assignment.
- 2.) To consider and experiment with interactive tools for the animation artist including concepts of interface, gaming, behavior targeting, et al.

**Evaluation:** Your work will primarily be evaluated according to the following criteria.

- 1.) Demonstration of sensitivity to and skill in the use of materials and processes involved in the assignment.
- 2.) Originality and creativity in response to the various parameters of the assignment, especially that of visual experimentation and composition.
- 3.) General craftsmanship as demonstrated in the final works submitted for evaluation. Hint: keep it clean!
- 4.) Evidence of the awareness and application of principles and concepts presented through any assigned readings in the course text, lectures, demonstrat

**READINGS:** (The Wooden Mirror) <http://www.youtube.com/watch?v=BZysu9QcceM>  
*Act/React: Interactive Installation Art* by Joseph D. Ketner II  
*The Art of Participation: 1950 to Now* by Rudolf Frieing

**DUE DATE:** will be submitted on \_\_\_\_\_ at the beginning of class for critique.

# **COURSE HANDOUTS**

## ART 335 ANIMATION WORKSHOP

**Animation terms** – this list is compilation of terms from multiple sources. Obviously the list could be much larger and longer but these are terms that I feel are essential for you to be familiar with.

**Alpha Channel** – The part of a digital image that is transparent.

**Animation** – Frame by frame film making.

**Animating on 1's/2's/3's etc.** – How long each drawing (or frame) is held during playback. Most commonly, animation is played back on 2's for a smooth look.

**Aspect Ratio** – The ratio of height to width of the frame expressed as a ratio (eg. 4:3, or 16:9) For a standard (square) TV picture – for every 4 units wide the picture is 3 units high. And for a newer HD TV (rectangle) picture – for every 16 units wide the picture is 9 units high.

**Background** – Usually referred to as a "BG". The static elements in a scene that appear to lie at the most distant plane. The BG is generally rendered on a single level as a painting.

**Blocking** – Rough animation without any refining. An attempt to show rough timing and posing.

**Breakdown Pose** – A special key pose that helps to define a certain motion between pose A and pose B. Usually to help define an arcing motion.

**Camera Angle** – The height and angle in which the camera is pointing. Animation studios use different terms to describe commonly used camera angles such as Upshot, Downshot, Birds eye view, Worms Eye View, Medium Shot, Head Shot, Wide Shot, Establishing Shot, Two shot, Close up, Extreme Close Up.

**Cheat** – Repositioning of elements in a scene in order to enhance the visual impact or appeal of its composition. Anytime something isn't working in a scene and we have to break the rules or do something unconventional we usually call it a "cheat" – "let's cheat this" or "lets do a cheat".

**Close-Up** – A shot in which the camera is framing the object of interest only, generally the head and shoulders on the case of a character.

**Color Model** – The first digitized drawing of a character to be painted. It serves as a prototype for all of the subsequent drawings of the same character. Often the BG is referred to in order to pick colors that will have appeal in the final composited version.

**Compositing** – Done in software. The combining of two or more separate elements into one. For example – compositing the character, background, and foreground elements together. Alpha channels and layers are used.

**Continuity** – In character animation, refers to matching a character pose between cuts (from one shot to the next). For example, if a character throws his arms up at the end of shot 32 and we cut to shot 33 – the characters arms should still be up at the start of shot 33. So we're keeping a close eye on continuity between shots.

**Constant** – Part of any movement where an object's speed is constant from frame to frame.

**Cross-Dissolve** – Sometimes, referred to as a Dissolve or X-Dissolve. A transitional device in which an outgoing scene fades out while the next scene fades up over the same number of frames.

**Cut** – A change of scenes without any kind of transition. eg. “cut to the next scene”.

**Cutoff** – Usually referring to TV Cutoff. The area of the recorded image which is guaranteed to be within the viewing area of a standard video monitor.

**Cycle** – A series of drawings or key poses that are designed to hook-up and be repeated as many times as required.

**Dallies** – Sometimes known as Rushes. The screening of all takes and footage produced the previous day. Usually for reviewing by a Lead Animator, Animation Supervisor or Director.

**Deep Canvasing:** A relatively new (1999) method of creating background scenes of an animated film that gives depth and a 3D effect. The technique developed by Disney animators and patented by them involves real painters actually painting on a computer electronically. See these two links:

<http://www.ew.com/ew/article/0,,272304,00.html> and

<http://www.youtube.com/watch?v=RZA6nitNeYw>

**Ease-in or Ease-out** – Also known as a Taper. To slow or ease out of or into a motion.

**Editing** – The arrangement of scenes into a final episode or film production complete with all sound elements, transitions, effects, and titles.

**Effects** – Also known as EFX, FX, or Special Effects. Any animation which is not a character or prop such as smoke, fire, water, explosions, light fx etc...

**Establishing Shot** – A wide shot to establish the location of where the action is about to take place.

**Extreme Keys** – Also referred to as “Extremes”. Those keyframes that are considered vital in order to express the action, usually when a change of direction occurs.

**Fade In/Fade Out** – An adjustment in exposure over a series of frames in order to brighten the image from black (fade in) or darken the image (fade out).

**Field** – In animation, it’s the area within the view of the camera.

**Field Guide** – Frame lines indicating the desired framing of a scene. It’s basically a box that you keep your animation inside of. These days you usually have a field guide that indicates a 4:3 aspect ratio for older TV displays and a 16:9 ratio for wider HD displays.

**Flash Back/Flash Forward** – A deliberate jump in the time period of a film designed to give the audience additional information about what occurred at that point in time.

**Flash-cut** – Sometimes called a Flutter-cut. A series of quick cuts, usually between two different

scenes that create a feeling of frenzy and tension.

**Footage** – Final complete animation that can be delivered to the next production stage.

**Foreground** – The elements in the frame which appear closest to camera.

**Frame** – A single rendered or recorded image.

**Frames Per Second** – Referred to as F.P.S. – The rate at which images must be displayed in order to achieve real time playback. (usually 24 FPS for film and 30 FPS for video).

**Frame, Framing** – Composition of a scene may take the form of Tight Framing or Loose Framing.

**Freeze Frame** – When a particular frame of video is held on the screen to stop motion in the film or video production

**Illusory Time** – Also known as Conditional Time. A depiction of events that is subjective and designed to convey a character's perception of the passage of time (eg. Dream Sequence). It does not adhere to real Present Time Continuity.

**Jump Cut** – A jump in the spatial and temporal continuity of a scene; usually a mistake, the result of a lack of 'coverage' or not enough background space. It can be used deliberately for its jarring effect. (eg. Jean-Luc Godard's *Breathless*).

**Key frame** – A critical frame in the continuum of an animation sequence. Very often major changes in the nature of screen content occur at the key frames and tweening often occurs between them.

**Layout** – The stage in production between Design and Animation. The Layout Artist creates a Field Guide, Levels for all scene elements, brings in the Props, FX, and BG as well as the start poses for the characters in the scene. The purpose of this stage is to set up the scene for animation.

**Limited Animation** – in this concept the quantity of motion in an animated image is limited to a very few elements of the image. By limiting the number of moving elements it is possible to reduce production time and costs

**Locked Off Shot** – Sometimes referred to as a Static Shot. A shot in which the camera does not move.

**Lip Sync** – The animation of a characters mouth to match the recorded dialogue provided. Some productions have a lip sync artist who specializes in this. In other productions the animator is responsible for the lip sync.

**MPEG** – Video file format (codec) developed by the "Moving Pictures Expert Group."

**Mapping** - in computer animation this is a form of programmed image manipulation wherein two dimensional texture patterns or photographic images may be connected to a three-dimensional form generated by the computer.

**Match Dissolve** – A Cross Dissolve in which the composition and subject matter match visually.

**Match Cut** – A cut in which the composition and subject matter match visually.

**Mix** – Also known as Sound Mix. The session in which all of the sound tracks are adjusted and then combined in order to blend with the visuals.

**Morphing** - is a type of animation that uses a software to fill in the gap between two images - MJ's "Black or White" music video.

**Motion Capture** – Sometimes referred to as *Mocap*. The digital recording of spatial and kinetic information by means of sensors worn by an actor or athlete who performs an action to be represented in 3D Animation. Used almost exclusively in gaming. There is another more advanced method called performance capture which also records facial movements used for film and video. It was first developed and used for the film The Polar Express starring Tom Hanks.

**Motion path** – The path that an object travels along in an animation. In computer animation this concept is critical to defining the overall animation.

**Mouth Chart** – Drawn Model Sheets indicating mouth positions used for a characters speech. Part of a characters Design Package for use in Lip-sync Animation.

**Moving Hold** – A series of frames where a character is relatively motionless. Usually there is a very subtle movement to keep the character "alive", including blinks and changes in eye direction.

**Outtakes** – Footage not used in the final assembly of a sequence.

**Over-Shoulder-Shot** – A two shot in which the back of one of the characters heads occupies the foreground.

**Pacing** – The rhythm of a sequence, scene or entire film. The speed at which actions occur.

**Pan** – A camera move in which the camera moves along its horizontal axis; pans to the right or left.

**Pass** – A run-through of an entire sequence or section of animation while attention is given to one specific detail of the animation. (eg. doing a pass for facial animation, or a pass for secondary animation).

**Persistence of Vision** – The property in human vision that allows us to perceive rapidly displayed sequential images as smooth motion, the threshold of which occurs at about 18 FPS.(frames per second).

**Point of View** – Also referred to as P.O.V. – A camera angle that approximates what one of the character in a scene would be seeing.

**Pop-ons** - animated objects which appear quickly and seemingly from nowhere, often denoting certain mental processes or thoughts. A standard example of this is the ubiquitous light bulb which may pop-on over someone's head to denote that they have an important thought.

**Pose-To-Pose-Animation** – The method of animating in which extreme poses of the character are created in the desired order, then the inbetweens are done to create smooth motion. May also refer to Limited Animation in which few inbetweens are employed. (also see Straight Ahead Animation).

**Post Production** – Refers to everything following the animation stage including Editing, Sound Editing, Sound Mixing, Effects, and Titles.

**Production Management System** – Every production studio has one of these. A web based system or piece of software that helps track the progress of a studios productions. Shows the progress of any given scene, stats for the percentage completed in each stage of production, and other tracking information so that it can be measured against the predetermined schedule. Everyone in the studio uses it see where stages of the production are at and to help stay on track with deadlines.

**Ray tracing** - in computer animation this is a form of programmed image manipulation in which reflected surfaces are given lifelike, and varying reflections, by mathematically simulating the changing reflections brought about by changing environments. It is termed ray tracing after the optical terminology which led to its development.

**Reaction Shot** – A shot of a character reacting to something off screen, Usually something that is being said (dialogue).

**Character Rotation** – Model Sheets, part of a Characters Design Package indicating Front, Side, Back, 3/4, and 3/4 back views. (and sometimes 3/8 views as well).

**Rotoscope** – The tracing of film from live action footage, sometimes the whole of the live action image and sometimes only points to match registration in the animation.

**Rough-cut** – A first edit, the assembly of footage that serves as a first attempt to finalize shot selection and trims of scenes.

**Scenario** – The first draft of a story outlining the plot, usually in one page.

**Scene** – A section of animation from one cut to the next cut (known in live action as a shot).

**Scrub** – To run the playback head over the timeline to check the results of an edit.

**Sequence** – A series of Scenes, usually occurring at one time and location dealing with the development of a single, main plot point.

**Shot angle (framing)** - there are many terms for this. In respect to distance is the frame revealing a 1). close-up 2). mid-shot 3). long shot. In respect to angle of view is the frame revealing 1). a view from above 2). a straight-on view 3). a view from below.

**Slow motion effect** - this effect is achieved by increasing the number of frames recorded of a certain event than would be normally required. When projected at a normal speed the extra number of frames takes longer to project giving the sense of a slowed event.

**Split Screen** – Multiple images that appear on screen at the same time.

**Staging** – The positioning of all elements in a scene so the action will be clearly represented. Usually done by Layout but also paid attention to and often refined by Animators.

**Standard Ass Grab** – Also known as SAG. When a character pulls an object or prop out from behind his/her/it's back.

**Stock Shots/Stock Footage** – Parts of an animation that can be re-used as many times as needed. Often used in Series Animation when the same action occurs in every episode, at a specific part in the story.

**Storyboard** – A series of sketches used to provide a preliminary description of a time-based work and conveying the composition, camera angle, and poses of the frames of an animated production.

**Straight Ahead Animation** – The Animation method employed when the priority is the way in which something animates rather than hitting specific key positions (or dialogue accents), used often in fx such as smoke and water splashes.

**Strobing** – A visually distracting “chattering” effect that occurs when large, highly contrasting images move quickly through frame.

**Sync** – Short for Synchronization, meaning that it is running in unison with or at the same speed. This is vital for sound elements that have to run at the same speed when the film is projected in order to be synced up to the visuals.

**Stop Motion Animation** – Frame by frame animation using sets, props and real lighting. Note that this simple format is the basis of all filmmaking but simplifies this process a bit further. There are several formats of animation that fit within this category. Among these are:

**Tail** – The end of a scene, sequence or film.

**Take** – Footage that's generated for any scene. Any attempt to create final elements for a scene.

**Technical Director** – Usually called a (TD). In a production studio the TD usually troubleshoots hardware and software issues that may arise with the equipment.

**Thumbnails** – Small drawings or rendered images used to express an idea for planning.

**Time Code** – The numeric display that corresponds to the running time in video, usually two digits each for the hour/minute/second/frame. (eg. 00:22:02:29)

**Tracking Shot** – A shot where the camera moves, similar to a Dolly Shot but where a constant distance from the subject is maintained, following the action.

**Tweening** – The process of creating frames between the main keyframes in an animation sequence. Historically this was done by hand by a person known as the “inbetweener” but is now more commonly accomplished digitally through the process known as tweening.

**Two Shot** – A shot in which two characters appear together.

**Voice Over** – Narration track that the audience hears but is not heard by the characters in the scene.

**Wipe** – A transitional device where an incoming scene replaces an outgoing scene over a series of frames, rather than a sudden cut or a dissolve.

**Zip Pan** – Also known as a Swish Pan. A fast pan in which the visuals are deliberately blurred for effect.

**Zoom (in or out)** - a series of frames in an animated image which bring the viewer closer to the subject (Zoom in) or draw them away (Zoom out).

## ART 335 ANIMATION WORKSHOP

**Types of animation** – this list is not exhaustive and was created by combining several lists by others as well as additional techniques not widely listed:

### 2D Animation Techniques and options

**CEL ANIMATION** – classic Disney animation technique as seen in Snow White, etc. The frames of the animation were individually created (drawn/painted) often on a transparent film that could be laid over a background drawing.

**COLLAGE ANIMATION** – A variant of stop-motion animation in which the animator cuts and pieces together frames of animation from existing imagery in a collage-like manner. See this example: <http://www.youtube.com/watch?v=6DE3qPuLV4>

**CLAY OR PLASTICINE ("CLAYMATION")** – a widely recognized animation technique in which characters and environment are represented in the form of clay figures and objects. The objects are malleable and change between frames. Take a look at the work of Jan Svankmajer, Czech artist and his 1982 work entitled *Dimensions of Dialogue*. <http://vimeo.com/17034946>

**STOP-MOTION ANIMATION** – in some respects all animation is stop motion. This technique simply refers to animation by recording consecutive frames of film where changes are introduced from frame to frame. In very special cases

**ROTOSCOPE** – tracing of content from actual camera imagery.

**FLIP BOOKS** - Keith Haring has made some famous ones.

**DIRECT DRAWN ANIMATION** – In this technique the artist draws directly on film materials such as blank leader over over existing cinema footage (ala Len Lye, Norman McClaren and Stan Brakhage)

**COMPUTER ASSISTED ANIMATION (2D)** - This term refers to all types of 2D animation that use a computer in the production process.

**PIXILATION** – a technique in which camera-based images are recorded of live actions often with major shifts between frames creating a sped up ation with a uniquely “jumpy” feel.

**SPECIALTY ANIMATION TECHNIQUES** - There are a host of materials that have been imaginatively employed through various stop-motion techniques to create animated films. Some more exotic examples might include (a.) sand animation, (b.) candle animation, etc. (c.) puppet animation (Tim Burton’s “Nightmare before Christmas.”)

**FLASH ANIMATIONS** - Many TV series are now done in Flash, check out this example.

Types of animation named after a software

Some types of animation are named after the software used to create them. Flash animation has come to mean a certain kind of graphic look and feel, which has also spawned the pleading request "Can you make it NOT look like Flash, PLEASE!"

There are also:

GIF animations - GIF is a type of file format, used for small, light weight animations with no more than a few frames.

After Effects animation - usually means either cut outs done in After Effects, or animation done with the program's Puppet Tool (which is amazing, BTW).

Blender, Mudbox, and Maya - all names of 3D animation softwares.

Pivot stick figure - A freeware for making stick figure animations. So simple, and so popular!

## Art 335: Animation Workshop

### How to place your STYKZ animation against an image background

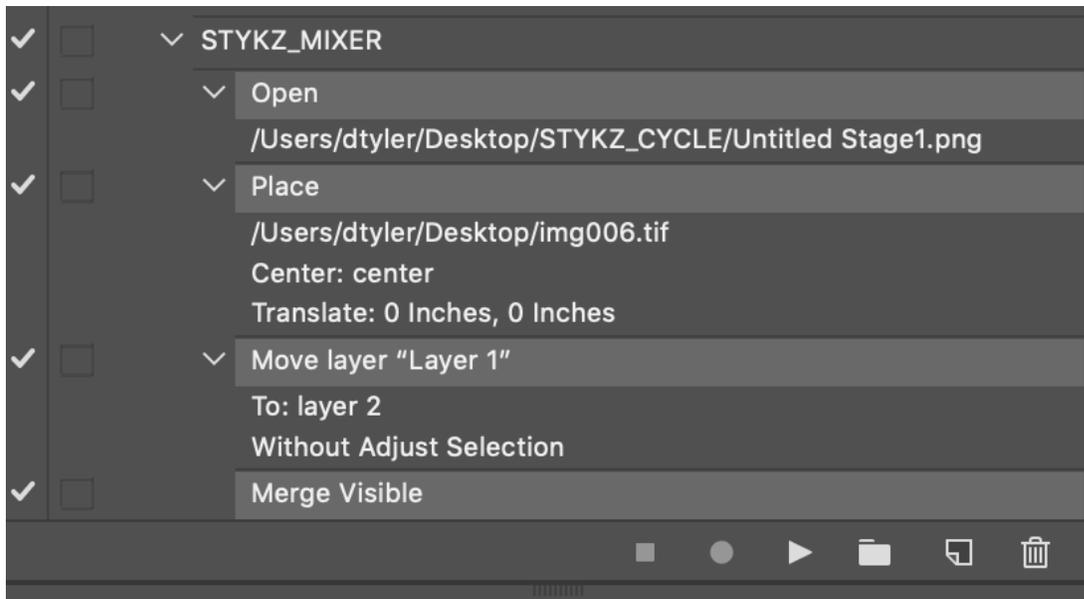
- A. Create and Save a file to match the size of your STYKZ stage in Photoshop (most file formats are OK for this).
- B. Create a **New Folder** on your DESKTOP and name it “STYKZ\_CYCLE”
- C. Export your animation using the FILE> EXPORT ANIMATION option.
- D. When exporting use the “**Sequence of Transparent PNG. Images**” option.
- E. In the SAVE AS dialog box save your images to the “STYKZ\_CYCLE” folder

Congrats you have now transformed your STYKZ animation into a set of individual files – one for each frame in your original animation. In order to convert your files into a single PSD file in preparation for placing background images do the following:

- F. Open ADOBE BRIDGE
- G. Locate your “STYKZ\_CYCLE” folder, open the folder and select all the files in the folder
- H. In the ADOBE BRIDGE menu go to TOOLS > PHOTOSHOP > LOAD FILES INTO PHOTOSHOP LAYERS
- I. Return to PHOTOSHOP (you can close the BRIDGE program)

The frames of your STYKZ ANIMATION are now loaded into PSD and may be accessed through the LAYERS window in PSD. If you wish to merge varied background images with your STYKZ frames you simply need to use the MERGE feature in PSD. The simplest way to do this is to load your BACKGROUND IMAGE into your PSD file by dragging and dropping the file icon for your BACKGROUND IMAGE onto the STYKZ image that is open in PSD. Now, in the LAYERS window drag the BACKGROUND IMAGE layer up or down until it is under the STYKZ layer that you wish to merge with it. Now, go to LAYERS > MERGE DOWN.

If you wish to use the same background image in all the layers in your animation you may want to consider using the AUTOMATED “Actions” feature of PSD to speed this process. Your ACTION SCRIPT should look something like this. Be sure to select “OVERIDE ACTION “OPEN” COMMANDS. Do not select “OVERIDE ACTION “SAVE AS” COMMANDS. (see illustration on next page)



After placing your backgrounds on the frames of your animation,

- J. Go to WINDOW > TIMELINE
- K. In the TIMELINE DIALOG box click on the menu box in the center of the window
- L. Use the arrow on the left and select the CREATE FRAME ANIMATION option.
- M. Click on the CREATE FRAME ANIMATION option (This is not a repeat – you actually need to “CLICK” on the button after you have selected it).
- N. A first animation frame appears
- O. Go to the MENU in the upper left corner of the TIMELINE window.
- P. CLICK on the menu icon (a very small set of four horizontal bars) and select “MAKE FRAMES FROM LAYERS”
- Q. Adjust the timing on the individual frames of your animation. To change the timing of all frames simply select all the frames and change the timing of one of them – all the remaining frames will be reset to that time.
- R. Your animation may now be saved as a **.gif** file but in order to retain the animated features you must do the following:
- S. With your file open go to FILE > EXPORT > SAVE FOR WEB (LEGACY)
- T. Make certain that your file type is set to **.gif** in the Save dialog box. Choose your other settings and then choose **SAVE**.

**Remember that an animated gif file is meant for web presentation. Try opening your file in a web browser like CHROME. You do not need to be connected to the internet to view your .gif files in a web browser.**

Art 335: Animation Workshop

LINKS to STYKZ tutorials

Link to a text tutorial providing background on adding elements to the STYKZ Library.

[https://www.stygz.net/support/tutorials/screensteps/Adding\\_stygz\\_Files\\_to\\_the\\_Library.php](https://www.stygz.net/support/tutorials/screensteps/Adding_stygz_Files_to_the_Library.php)

A short tutorial on adding elements from the library and figure climbing stairs

<https://www.youtube.com/watch?v=Uw2bCic4o0s>

A series of video tutorials covering walks and runs (not very efficient)

<https://www.youtube.com/watch?v=Cd5K8pnPqPQ> (walk loop)

[https://www.youtube.com/watch?v=vb6TJEZl\\_FA](https://www.youtube.com/watch?v=vb6TJEZl_FA) (run loops)

<https://www.youtube.com/watch?v=S-xmPAige1U> (smoothing an animation)

LINKS TO SAMPLE STYKZ ANIMATIONS

Many of these animations are blocked but there are still several good ones here.

<http://www.smashingapps.com/2009/07/23/13-fast-and-furious-stick-figure-animations-and-tutorials.html>

Pinterest is loaded with some intriguing stick animation examples

<http://batmanparodyhub.blogspot.com/2012/12/permanent-top-post-scroll-down-for.html?spref=pi>

<https://9gag.com/gag/ayd8XXY?ref=pin>