

# Face Detection::Collaboration

Panel Presentation: From Street Art in VR to Researching  
“Composita”: Collaborative Digital Approaches for the Win



ARLIS-NA Conference 2019  
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# Introduction

- Facial detection and recognition software
- Uses in art, art history and digital humanities
- Real world collaboration example - Researching “Composita”
- Break out session
  - Issues related to facial detection and recognition
  - Beta Face Demo
  - Amazon Rekognition

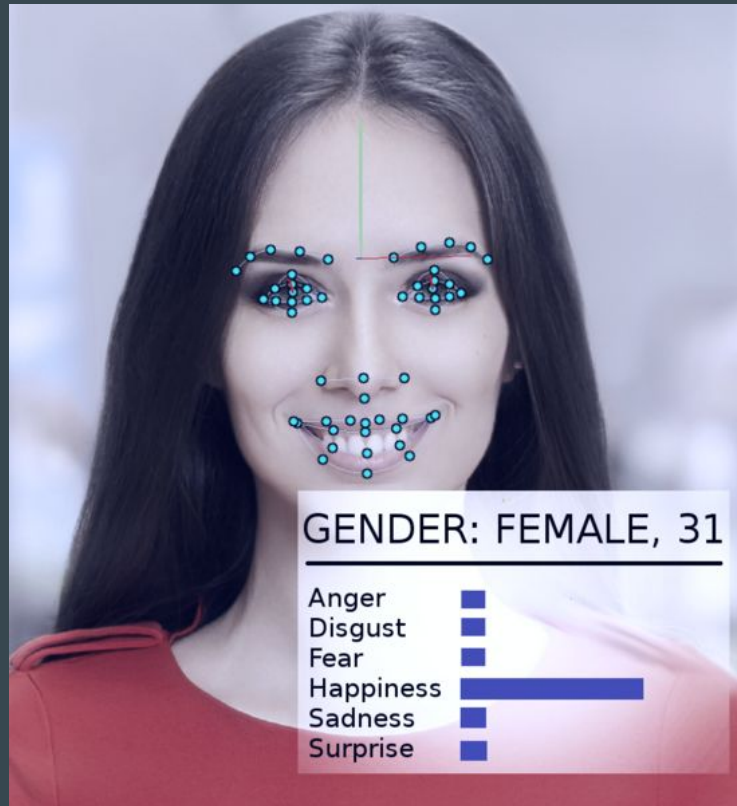
# What is Facial Detection and Recognition Software?

# Type of analysis software

- Detect a face
- Detect features
- Estimate age
- Estimate gender
- Look for anomalies
- Match in known database
- Action
- What else
- Who else
- Place
- Time
- Match with known variables

# Uses

- Social Media
- Marketing
- Security
- Surveillance
- Law Enforcement
- Medicine
- Military Applications
- Science
- Humanities





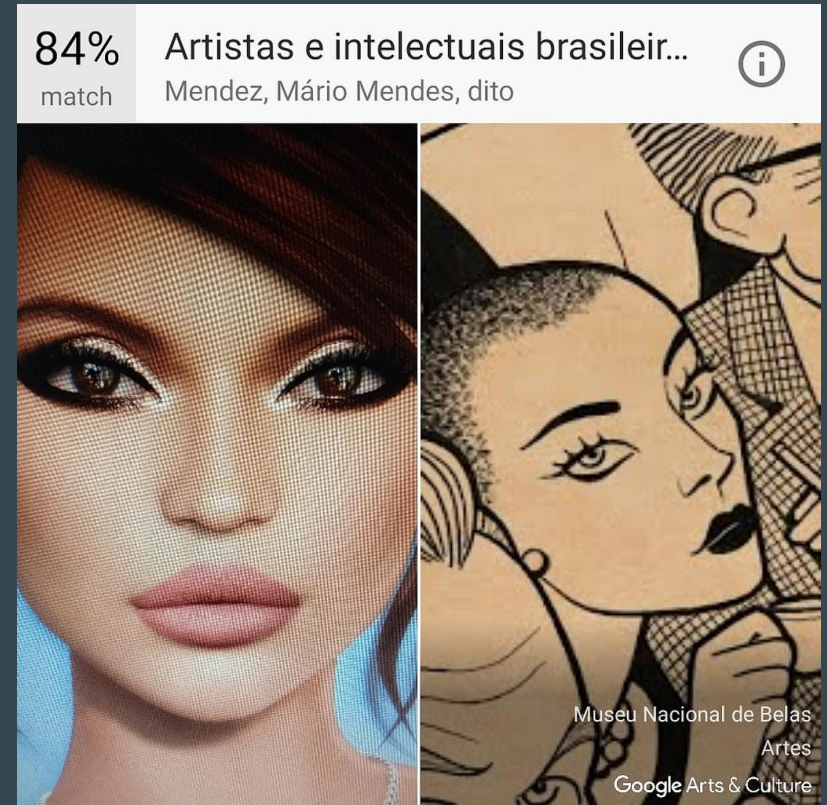
[National Institute of Standards and Technology](#)

# Uses and Potential Uses in Art and Art History

# Research, Outreach, Education

- Painting and drawing analysis
- Museum outreach games
- Digital Humanities projects

Google Arts & Culture App Match Artistas e intelectuais brasileiros





# Art History Example Use Cases: Photography

The Art of the Masses: From Kodak Brownie to Instagram  
Alise Teasdale, Networking Knowledge, 2015

- Comparative study historical and modern casual portraiture
- New software allows for new methods of theorizing
- Performance
- Settings
- Poses
- Estimated ages
- Location
- Cultural differences
- Genre

# Art History Example Use Cases: Sculpture

Facial Transformation of Ancient Portraits: the face of Ceaser  
Amelia Carolina Sparavinga

- Study of morphs over time of a specific subject
- Changes
- Transformation software

- Mood
- Gaze
- Age
- Material
- Expression

# Art History Example Use Cases: Discovery Software Project

FACES: Faces, Art, and Computerized Evaluation Systems

Conrad Rudolph - Project Director

- University of California Riverside
  - Grant to develop FACE software
  - Portraits before 19th Century
  - Who is this?
- Discovery
  - Famous unknowns
  - Connect to settings
  - Connect to time & place

# Collaboration on Digital Projects

## Real World Example



# Real World Example: Collaboration

Kris Beldon-Adams

Assistant Professor of Art History

University of Mississippi

Work focuses on the history and theory of photography.

Extensively published - additional citations in the resources section.

# Real World Example: Context

- Composita - Smith College 1886
- Feminine composite photograph of over 40 Smith College Women
- Kris had socio-cultural questions regarding composition of the photograph and the photographer.
- Kris's questions primarily focused on gender, social status and the cultural climate of the 1880 - 1920s Positive Eugenics movement

# Real World Example: Software

Kris's Questions: What is the composition of the Smith College Composita Mascot Image? What are the physical attributes and how might they have been manifest in the composition.

- Photoshop
- PicTrieV
- BetaFace



# Real World Example: Citation

Belden-Adams, Kris. "'Composita,' the 'Mascot' of the Smith College Class of 1886: Picturing Sisterhood, Social Caste and Gender Roles," in *Photography and Failure : One Medium's Entanglement with Flops, Underdogs and Disappointments*. London, UK: Bloomsbury Academic, 2017.

*Upcoming related book:*

Kris Belden-Adams, *Eugenics, 'Aristogenics,' Photography: Picturing Privilege* (London: Bloomsbury Academic Press, forthcoming mid-2019).

# Bibliography

Wikimedia Commons contributors, "File:Visage Technologies Face Tracking and Analysis.png," *Wikimedia Commons, the free media repository*, [https://commons.wikimedia.org/w/index.php?title=File:Visage\\_Technologies\\_Face\\_Tracking\\_and\\_Analysis.png&oldid=258010660](https://commons.wikimedia.org/w/index.php?title=File:Visage_Technologies_Face_Tracking_and_Analysis.png&oldid=258010660) (accessed March 17, 2019).

Wikimedia Commons contributors, "File:Facial Recognition Software (14258398597).jpg," *Wikimedia Commons, the free media repository*, [https://commons.wikimedia.org/w/index.php?title=File:Facial\\_Recognition\\_Software\\_\(14258398597\).jpg&oldid=281817172](https://commons.wikimedia.org/w/index.php?title=File:Facial_Recognition_Software_(14258398597).jpg&oldid=281817172) (accessed March 17, 2019).

Google Arts & Culture App Match  
<https://www.flickr.com/photos/strawberrysingh/39076228174>

Result: Artistas e intelectuais brasileiros [www.google.com/culturalinstitute/beta/asset/artistas-e-in...](http://www.google.com/culturalinstitute/beta/asset/artistas-e-in...)

# Bibliography

Tifentale, A. (2015, December 7). Art of the Masses: From Kodak Brownie to Instagram. *Networking Knowledge: Journal of the MeCCSA Postgraduate Network*, 8(6).

<https://doi.org/https://doi.org/10.31165/nk.2015.86.399>

Sparavigna, Amelia Carolina. “Facial transformations of ancient portraits: the face of Caesar.” *CoRR* abs/1304.1972 (2013): n. Pag.

Kohl, Jeanette & Rudolph, Conrad & Srinivasan, Ramya & Roy-Chowdhury, Amit. (2018). *FACES: Faces, Art, and Computerized Evaluation Systems – A Feasibility Study of the Application of Face Recognition Technology to Works of Portrait Art*. In: *artibus et historiae*, no. 75 (XXXVIII), 2017. *Artibus et Historiae*.

*Conrad Rudolph: “FACES 2.0: Faces, Art and Computerized Evaluation Systems”*. Directed by Frick Collection. Performed by Conrad Rudolph. Vimeo. April 2018. Accessed March 17, 2019.

<https://vimeo.com/267492549>.

# Bibliography

Tifentale A., Manovich L. (2015) Selfiecity: Exploring Photography and Self-Fashioning in Social Media. In: Berry D.M., Dieter M. (eds) *Postdigital Aesthetics*. Palgrave Macmillan, London

Wikimedia Commons contributors, "File:Facial Recognition.jpg," *Wikimedia Commons, the free media repository*,

[https://commons.wikimedia.org/w/index.php?title=File:Facial\\_Recognition.jpg&oldid=187264340](https://commons.wikimedia.org/w/index.php?title=File:Facial_Recognition.jpg&oldid=187264340)

(accessed March 17, 2019).

Belden-Adams, Kris. "'Composita,' the 'Mascot' of the Smith College Class of 1886: Picturing Sisterhood, Social Caste and Gender Roles," in *Photography and Failure : One Medium's Entanglement with Flops, Underdogs and Disappointments*. London, UK: Bloomsbury Academic, 2017.

# Resources listed

Photoshop Creative Cloud Suite

[https://www.adobe.com/products/photoshop.html?sdid=KKQIN&mv=search&ef\\_id=CjwKCAjw4LfkBRBDEiwAc2DSIA\\_IRWAdppa2dZfsNy1nNtcVgGRUB6JNAtJCmCcZ12n4dNknHUs3xBoCAtkQAvD\\_BwE:G:s&s\\_kwid=AL!3085!3!301413807968!e!!g!!photoshop](https://www.adobe.com/products/photoshop.html?sdid=KKQIN&mv=search&ef_id=CjwKCAjw4LfkBRBDEiwAc2DSIA_IRWAdppa2dZfsNy1nNtcVgGRUB6JNAtJCmCcZ12n4dNknHUs3xBoCAtkQAvD_BwE:G:s&s_kwid=AL!3085!3!301413807968!e!!g!!photoshop)

PicTrieV

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

Betaface

<https://www.betafaceapi.com/wpa/>

# More works by Kris Belden-Adams

Belden-Adams, Kris. *Photography, Temporality, and Modernity: Time Warped*. Routledge History of Photography. 2019.

Belden-Adams, Kris. "Harvard's Composite "Class" Pictures." *Photographies* 8, no. 2 (2015): 1-12.

Belden-Adams K. (2018) Redefining the "Document": Social-Media Photographs as Narrative, Performance, Habitude. In: Cammaer G., Fitzpatrick B., Lessard B. (eds) *Critical Distance in Documentary Media*. Palgrave Macmillan, Cham

Belden-Adams. K. (2017) *Photography and Failure : One Medium's Entanglement with Flops, Underdogs and Disappointments*. London, UK: Bloomsbury Academic