

Changing the Landscape: Enhancing Diversity in Animation and Graphics

A Sociotechnical Research Paper
presented to the faculty of the
School of Engineering and Applied Science
University of Virginia

by

Megan Reddy

April 7, 2021

On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

Megan Reddy

Sociotechnical advisor: Peter Norton, Department of Engineering and Society

Changing the Landscape: Enhancing Diversity in Animation and Graphics

Modern animation began as a hand-drawn medium often used in children's entertainment and practiced by a select few (Meyer, 2016). Over the past 30 years, computer graphics and internet technologies have made the animation process easier and faster, helping cement its place as a mainstream art form (Arora, 2018). Its widespread availability through television, phones, and computers has brought a diverse audience in terms of age, gender, ethnicity, and culture to the global animation scene (Osborne, 2013). Among modern industry professionals and audiences, many are demanding more diverse characters and storytelling to combat traditional norms upheld by studio giants and entertainment organizations. The animation and graphics communities are figuring out ways to enhance diversity in the creative process to visualize stories that better reflect the modern audience.

Creative spaces that are exclusive and unrepresentative tend to produce stories that overlook or caricature diverse cultures. Yalda Uhls, an adjunct professor of psychology at UCLA, warns that without a broader range of voices, "stories and characters will come across as stereotypical" to the modern audience (Wolpert, 2020). According to the Computing Research Association (CRA), diversity is an advantage on teams; when the team has diverse ways to "perceive and solve problems," it is less likely to "miss a critical perspective" (2017). By empowering diverse creatives early in the process, providing them with the resources, tools, and guidance to succeed, diversity advocates can promote change. They can compel animation companies to improve hiring practices and recognize talent working behind the scenes, thereby fostering a more representative pool of storytellers.

Review of Research

Media researchers have addressed the importance of representation onscreen. According to Sandlin and Garlen (2017), Disney and other sources of cultural influence shape conceptions of “gender, sexuality, race, class, ethnicity, and childhood.” Because many children and young adults respond to onscreen characters, disparaging portrayals or omissions of characters like them may diminish their self-esteem (Dobrow et al., 2018). Murrar and Brauer (2018) argue that entertainment education is effective in reducing prejudice. Participants that viewed shows with a diverse cast were less subject to “implicit and explicit measures of prejudice” than those that viewed shows with an all-White cast. Murrar and Brauer assert that “media consumers develop parasocial relationships with characters,” causing viewers “to like, to understand, to feel similar to, and to feel more connected to members of the outgroup.” Jenson (1992) discusses similar effects in the field of fandom studies. Passionate fans are often categorized as dangerous “others” in comparison to normal “people like us,” which includes students, professors, and social critics. She explains that if “we associate ourselves with those ‘others,’” we are less likely to “succumb to elitism and reductionism.” Applying Jenson’s theory to animation and graphics can explain the real-life importance of diverse characters, stories, and styles. Not only does representation in animation impact the viewer’s sense of self, but also reduces hostility between different social groups.

Studies on team-effectiveness discuss how diversity can eliminate the “us vs. them” mentality in the workplace. Edmondson and Roloff (2009) contend that teams need “psychological safety,” or “a climate in which people feel free to express work-relevant thoughts and feelings.” Diversity fosters psychological safety by preventing team members from perceiving that they belong to an outgroup. Paulus et al. (2016) warn that “perceived intergroup

differences” can negatively impact culturally diverse teams. Without positive shared experiences, team members will feel less inclined to share unique perspectives and generate new ideas.

Several studies have investigated common inclusion strategies in fields with poor workplace diversity. Tsui (2007) reviews STEM strategies, including mentoring, career counseling, workshops, seminars, and curriculum reform. Smith et al. (2018) note that in film, inclusion riders, target inclusion goals, and policy reform can promote enduring change. Hunt et al. (2019) propose a M.E.A.N.S. model of essential diversity practices for Hollywood. This includes modernizing one’s worldview, casting a wider net for hiring, amplifying marginalized voices, normalizing compensation practices, and creating incentives for diversity and inclusion. Sands (2020) discusses the importance of providing access to relationships and highlighting talent through film festivals, showcases, and art databases. None of these studies, however, explain techniques in the context of animation and graphics. They also do not discuss external pressures from fans and advocacy groups as forces of change. Jernigan and Wright (1996) discuss mass media as a tool for social advocacy, describing it as a resource to “promote healthier public policies and environments.” Szekeres et al. (2020) describe the impact of #MeToo and how it reduced “dismissal of sexual assault” in the United States. Both studies reveal how social groups can enact change through a collective movement. Animation fans and advocacy groups demonstrate the same phenomenon. Their opinions and persisted pressures can change the mentality of large media companies and encourage reformative action.

Researchers have reviewed contributing factors to effective strategies. According to Lewis et al. (2019), cultural change is important and possible. When workplaces meet underrepresented groups’ “varying levels of communal values,” promote interaction between different groups, educate employees about institutional biases, and use language sensitive to

everyone's needs, they can foster a sense of belonging. Tsui (2007) adds that many underrepresented groups do well under initiatives that emphasize "real-life applications" and community contributions. Smith et al. (2019) note that female animators often lack a sense of belonging in a male-dominated workplace culture, and suggest that community-building and camaraderie are important to their careers. Sands (2020) argues that successful entertainment initiatives should improve work environments. By hiring underrepresented groups and highlighting incremental change, workplaces create a positive outlook for the future. Although these studies focus on evaluating initiatives, researchers identify common diversity techniques that may be applied in the animation and graphics industry.

Preparation for the Industry

Educational Resources

Advocates hope to attract diverse individuals to the animation and graphics community through educational resources. Some groups stress the importance of spreading conceptual and technical knowledge to a wider group of people. At its annual computer graphics conferences, ACM SIGGRAPH promotes "awareness, education and resources," releasing over 250 hours of content that includes research papers, courses, and talks. The conference committee claims these build "cultural awareness, knowledge, and educational enrichment for members" (ACM SIGGRAPH, 2020). The Academy Software Foundation (ASWF) promotes collaborative opensource development in the animation and VFX communities, striving to "break down racial, gender, and corporate barriers to unite people around a shared goal" (2020). Women in Animation (WIA) runs a scholarship program to "further the academic efforts" of animation college students. The program distributes software packages from renown industry partners such

as Autodesk, Toon Boom, and Unity, who support helping female animators “gain employable skills” and experience with 3D tools (WIA, n.d.). By releasing these resources, professional organizations and groups equip a wider variety of people with the training and knowledge to succeed in the field.

Other groups aim to explain the industry and build a pathway for interested individuals. Black N’ Animated is a podcast that strives to “educate, inform, and inspire black artists pursuing careers in animation” by spotlighting black creatives and their journeys into the field (n.d.). One fan organized a Twitter thread about industry groups and business workshops, arguing that the “animation industry needs more diversity” (Juwono, 2020). With more information about available opportunities and hiring practices, diverse individuals can better navigate the job search process and overcome gatekeeping mechanisms in the entertainment industry.

Tools and Training

Many professionals claim that the design and nature of 3D tools themselves can facilitate diversity in the creative process. For the past two decades, artists and professionals have pushed to add support for stylized art into modern software. Sugano Yoshinori, a former CG director at Japan’s Studio Ghibli, observes that 3D visuals have tended towards “seamless reality.” He believes that computer graphics should instead “facilitate interpretation” and aid in the “symbolization of the world” achieved by traditional art (Yoshinori, 1999). Pixar recently released RenderMan 24, a rendering software that pairs photorealistic technology with stylized looks. RenderMan developers claim that the fusion of techniques offers “new opportunities for storytellers” (Sisson, 2020). Prague tech company Secret Weapons introduced EbSynth, a “tool designed to automate rotoscoping in arbitrary styles.” They hope that their algorithm “respects the

artist's vision and preserves their style in all its details" (Sarto, 2020). Efforts to improve animation technology show that, in addition to educating artists about software, an animator's tools should adapt and reflect their novel techniques and experiences.

Professionals independently release content to help people navigate 3D tools and emerging technologies. Laura Price, a visual development artist in the animation industry, runs a YouTube channel where she regularly releases "drawing tutorials and art advice videos" (Price, n.d.). Mike Hermes runs a YouTube channel dedicated to "3D modeling, rigging and animation," emphasizing that he "will not charge money" for his tutorials and that they are "free and will always be" (Hermes, n.d.). Jim Mortensen, a supervising producer at Nickelodeon Animation, compiled a 50-page storyboarding packet with "moderate-to-advanced topics" that is "pay-what-you-want." He plans to donate all proceeds to Inner-City Arts, a learning center in LA where "teaching artists help children unlock their creative potential" (Mortensen, 2018; Inner-City Arts, n.d.). By releasing content on widely accessible platforms such as YouTube and Twitter, the animation and graphics communities can reach a larger group of people. Considering the high cost of graphics and animation tools, free training and resources can alleviate many of the economic barriers that individuals face when entering the community.

Mentorship

Advocates argue that mentorship is essential to providing the connections and relationships needed to succeed in the industry. Women in Animation, with a goal of gender parity in animation by 2025, runs a biannual mentorship program that pairs mentees with animation leaders (WIA, n.d.-a). They believe the program will cultivate a professional network and "create industry access and opportunities" for mentees (WIA, n.d.-b). Media companies offer mentorship through internships and workshops, one example being WarnerMedia's Access

Writers Program. The half-year virtual program aims to “provide marginalized voices a pathway for entry into the television industry through instruction, mentorship and exposure”

(WarnerMedia, n.d.). Professionals also offer mentorship through informal means, such as offering one-on-one advice through social media or personal workshops. Phil Rynda of Netflix Animation offered to mentor “5 black artist mentees” for 12 months, encouraging them to share artwork and an area they are “hoping to improve” (Rynda, 2020). Mentorship not only provides mentees with information and connections to enter the industry, but also fosters psychological safety. By interacting with individuals from similar backgrounds and experiences, they can feel welcome in the animation community and feel as if success is possible.

Industry Efforts

Hiring Practices and Outreach

Studio giants have acknowledged their global presence and the need for concrete internal change. Many have established initiatives and departments dedicated to adding diverse voices to their teams, often through better hiring practices and outreach efforts. Pixar’s Diversity, Inclusion, Belonging, and Outreach group aims to build a “diverse workforce” through “university outreach, conferences, community events and organizational partnerships” (Pixar, n.d.-a). The Pixar Undergraduate Program (PUP) allows undergraduate students from across the world to participate in a twelve-week summer course in technical direction (Pixar, n.d.-b).

Former PUP student David Luoh praises the program for opening his eyes to the “inspiring work happening in the space between technology and art.” Pete Doctor, Pixar’s Chief Creative Officer, argues that in order for their films to “speak to everyone,” their filmmakers must “reflect the full diversity of the world.” Pixar’s president, Jim Morris, adds that such efforts ensure that their

team “represents the whole of that audience” and allows everyone “to see a bit of themselves on the screen” (Pixar, n.d.-a).

Other major animation companies have followed in Pixar’s footsteps. Disney announced plans to deepen relationships with Historically Black Colleges and Universities (HBCUs), which they believe will help them “grow, innovate, and create the best stories.” By establishing “student internships, mentorship opportunities, and inclusive hiring practices,” they hope to create a “robust” and “long-term pipeline of Black talent” (Collier, 2020). The Universal and DreamWorks Global Talent Development & Inclusion department claims to prioritize stories with “inclusive narratives that reflect the global audience” (Universal, n.d.). The department plans to “develop a pool of creative talent” through outreach efforts and educational programs (Universal Pictures, 2019). Corporate statements reveal that, by recruiting and giving creative control to diverse talent, large animation companies can increase their appeal and profitability among a varied audience. By including more voices in the process, companies can achieve the authenticity and lasting connections they wish to have with their growing international market.

Expanding Creative Control

Studios have established advisory boards to maintain cultural integrity during the creative process. Pixar has employee “culture trusts,” which they believe will help their films “get the details correct” and ensure that their representations are “culturally competent.” Apton Corbin, a Pixar story artist, contends that culture trusts give creative teams “personal insights” and “authenticity” during the moviemaking process (Pixar, n.d.-a). Jessica Heidt, a Pixar script supervisor, developed a software program to track diversity in Pixar films. She is passionate about capturing “inclusive and authentic stories” from a diverse community (Heidt, n.d.). The Walt Disney Company has an advisory council comprised of advocacy groups who are “at the

forefront of driving narrative change in media and entertainment.” The council provides projects with “ongoing guidance” and “thought leadership on critical issues and shifting perceptions” (The Walt Disney Company, n.d.-b). Universal and DreamWorks promise to provide “diversity and inclusion notes and recommendations” to their productions (Universal Pictures, 2019).

Animation and graphics organizations have platforms to provide worldwide exposure to diverse artists and their stories. Pixar’s SparkShorts program is designed to “discover new storytellers, explore new storytelling techniques, and experiment with new production workflows.” According to Erica Milsom, director of Pixar short *Loop*, SparkShorts is seeking stories from “directors who haven’t traditionally gotten to control the narrative” (Pixar, n.d.-a). In 2019, Walt Disney Studios launched the Disney Launchpad: Shorts Incubator competition, an opportunity for “directors from underrepresented backgrounds to create an original, live-action short” for Disney+ (The Walt Disney Company, n.d.-a). *Inside Pixar*, a Disney+ docuseries, aims to provide an “inside look” into the “people, artistry, and culture of Pixar Animation Studios.” The show promotes “personal and cinematic stories” that would otherwise remain unseen by the general audience (Disney+, n.d.). The Visual Effects Society (VES) announced a partnership with Autodesk, a leader in 3D graphics and entertainment software. VES plans to “shine a light on diversity” in visual effects by promoting talks from underrepresented professionals, giving them a “new platform for inspired storytelling” (2019).

Social and Cultural Pressures

Civil rights and equality organizations have denounced some media works for promoting negative stereotypes and recognized other programs for their success in setting a high diversity standard. The NAACP has criticized Hollywood for being “curiously intransigent,” calling out

the “brazenly racist” film *Birth of a Nation* in 1915 and continuing to campaign for the lack of representation onscreen throughout the 20th and early 21st centuries (NAACP, n.d.). The group aims to hold the entertainment industry “accountable for advancing diversity in front of and behind the lens” through the NAACP Image Awards. The awards recognize outstanding performances by people of color in entertainment and serve as a “celebration” of their stories (NAACP, n.d.; NAACP Image Awards, n.d.). GLAAD speaks out about “why anti-LGBTQ attitudes and content have no place in media,” releasing annual diversity reports and highlighting a “slew of anti-LGBTQ moments” in its 2015 video “Hollywood Must Do Better” (GLAAD, n.d.-a). The organization also manages the GLAAD Media Awards, which honor media that portrays a “fair, accurate, and inclusive” representation of the LGBTQ community (GLAAD, n.d.-b). Advocacy groups not only provide awareness about internal problems, but also give exemplary stories exposure through awards. This recognition incentivizes desirable content and sets positive expectations for the industry.

Fans can catalyze change by challenging the lack of onscreen diversity. Many use social media to promote reform and voice their opinions about current content. After viewing the final season of *She-Ra*, a fan thanked showrunner Noelle Stevenson on Twitter, arguing that the show would be “impactful on the queer youth of today” (Aislynn, 2020). A fan of Netflix show *Tuca & Bertie* urged the platform to renew the cartoon because she has rarely seen media that has “realistically represented” her experience as a woman (Magaña, 2019). Fans also target institutions they associate with the status quo. The 2015 #OscarsSoWhite campaign placed the Academy of Motion Picture Arts and Sciences (AMPAS) in the “crosshairs of advocates” and prompted new inclusion criteria for its Oscars nomination process (Smith et al., 2016). The

Academy hopes that the new standards will “better reflect the diversity of the movie-going audience” (Academy, 2020).

Outside pressures from fans show how online movements and opinions can ignite change. Social media provides a platform for marginalized groups to bring important issues to the forefront and generate discussion that encourages media organizations to address the issues. Positive and negative fan reviews, similar to awards, provide instant feedback to studios and can promote more diverse content. When #BlackLivesMatter resurfaced during U.S. protests against police brutality in 2020, reformers used the momentum to call for extensive change in animation. Joan Baker, a Black voice actor, believes the protests put the conversation about racial equality “front and center” and show that “something transformative is happening” (Sayej, 2020). White actors voicing Black characters responded to the pressure. Jenny Slate walked away from her biracial character on the animated show *Big Mouth*, explaining that her involvement in the role was “an erasure of Black people” and that “Black characters on an animated show should be played by Black people” (Slate, 2020). Kristen Bell, who voiced biracial character Molly in *Central Park*, tweeted that it was time to acknowledge her “act of complicity” and stepped down from the role (Bell, 2020).

Conclusion

Enhancing diversity in the creative process does not solely depend on a specific strategy nor purely internal change. Internal and external forces work together to increase awareness, provide resources, and build the infrastructure to support a diverse workforce. However, this brings into question whether the presence of diversity strategies alone is enough to indicate effectiveness. Future work may examine the impact and any lasting changes of these initiatives within the animation and graphics industry. Some reformers note that “diversity does not stick

without inclusion,” suggesting that, to maintain representation, media companies need the mechanisms to retain diverse talent (Sherbin and Rashid, 2017). If companies create an environment where diverse creatives do not feel welcome to share their novel ideas, they inhibit the potential for varied stories. Companies and organizations working beyond the Western entertainment scene can also engage in this conversation. Animation continues to have an especially large presence in eastern Asia and a growing presence in other areas of the world. International studios, such as Japan’s Studio Ghibli, are comparable to the likes of Disney or Pixar in terms of technical prowess and storytelling impact. The United States’ diverse and large population further presses the need for diversity in any field. As international companies expand their reach, they may feel compelled to change and adapt their storytelling techniques to reflect their growing audience.

References

- ACM SIGGRAPH. (2020, March 28). Diversity and Inclusion. <https://www.siggraph.org/connect/diversity-and-inclusion/>
- Aislynn. [@loveunholycs]. (2020, May 15). im sobbing so hard. noelle.... thank you. this is going to be so impactful on the queer youth of today. [Tweet]. <https://twitter.com/loveunholycs/status/1261264428676403200>
- AMPAS (2020, September 10). Academy of Motion Picture Arts and Sciences. Academy Establishes Representation and Inclusion Standards for Oscars® Eligibility. Oscars.Org. <https://www.oscars.org/news/academy-establishes-representation-and-inclusion-standards-oscarsr-eligibility>
- Arora, Sunny. (2018, April 10). The Evolution of Animation: From Entertainment to Business Videos – A Brief Journey Through Time. Broadcast2World. <https://www.b2w.tv/blog/the-evolution-of-animation-a-brief-journey-through-time>
- ASWF (2020, August 27). Academy Software Foundation. Addressing the State of Diversity & Inclusion in Open Source VFX Communities. https://www.aswf.io/news/diversity_inclusion/
- Black N' Animated. (n.d.). PodBean. <https://blacknanimated.podbean.com/>
- Bell, Kristen. [@KristenBell]. (2020, June 24). This is a time to acknowledge our acts of complicity. Heres 1 of mine. Playing the Molly in Central Park [Tweet]. <https://twitter.com/KristenBell/status/1275946517107335168>
- Collier, Courtnee. (2020, October 23). Disney Working with Historically Black Colleges and Universities to Inspire the Next Gen to Dream Big. Disney Parks Blog. <https://disney Parks.disney.go.com/blog/2020/10/disney-working-with-historically-black-colleges-and-universities-to-inspire-the-next-gen-to-dream-big/>
- Computing Research Association – Widening Participation. (2017, April 13). Diversity in STEM – Important for Society, Good for Business. <https://cra.org/cra-wp/diversity-stem-important-society-good-business/>
- Disney+. (2020). Inside Pixar [Docuseries]. <https://www.disneyplus.com/series/inside-pixar/QvnA6QJC9SYi>
- Dobrow, Julie, Gidney, Calvin, and Burton, Jennifer. (2018, March 07). Why it's so important for kids to see diverse TV and movie characters. The Conversation. <https://theconversation.com/why-its-so-important-for-kids-to-see-diverse-tv-and-movie-characters-92576>

- Edmondson, Amy and Roloff, Kathryn. (2009). Leveraging Diversity Through Psychological Safety. *Team Effectiveness in Complex Organizations: Cross-disciplinary Perspectives and Approaches*. Harvard.
- GLAAD. (n.d.-a). Entertainment Media. <https://www.glaad.org/entertainment>
- GLAAD. (n.d.-b). 32nd Annual GLAAD Media Awards. <https://www.glaad.org/mediaawards/32>
- Hermes, Mike. (n.d.). About [YouTube channel]. YouTube. https://www.youtube.com/channel/UCNWfrhzNRMYx_p1YIUKVVKQ/about
- Heidt, Jessica. (n.d.). About [LinkedIn page]. LinkedIn. <https://www.linkedin.com/in/jessica-heidt>
- Inner-City Arts [InnerCityArts]. (n.d.). A learning oasis in the heart of Downtown Los Angeles where professional teaching artists help children unlock their creative potential [Twitter bio]. <https://twitter.com/InnerCityArts>
- Jenson, Joli. (1992). Fandom as Pathology: The Consequences of Characterization. In L. Lewis (Ed.), *The Adoring Audience: Fan Culture and Popular Media*. (pp. 9-26). London: Routledge.
- Jernigan, David and Wright, Patricia. (1996). Media Advocacy: Lessons from Community Experiences. *Journal of Public Health Policy*, 17:3, 306-330. JSTOR.
- Juwono, Jessie. [@jessiejuwono]. (2020, May 30). The animation industry needs more diversity, so here's a thread with resources! [Tweet]. <https://twitter.com/jessiejuwono/status/1266585150743175169>
- Lewis et al. (2019). Alignment of Goals and Perceptions of Computing Predicts Students' Sense of Belonging in Computing. *Proceedings of the 2019 ACM Conference on International Computing Education* (Jul.), 11-19. ACM Digital Library.
- Price, Laura. (n.d.) About. <https://www.luludraws.com/about>
- Magaña, Monica. [@MonicaM_art]. (2019, July 24). RENEW TUCA AND BERTIE, I have rarely ever seen a show that has so realistically represented my experience as a woman [Tweet]. https://twitter.com/MonicaM_art/status/1154171309011554304
- Meyer, Andrew. (2016). Animation or Cartoons: An American Dilemma. [Honor's Project, Seattle Pacific University]. Digital Commons @ SPU.
- Mortensen, Jim. [@jimmortensen]. (2018, November 7). Hi! I put up a 50 page packet of Storyboard Tips covering some moderate-to-advanced topics (POV, cinematic shots, etc). [Tweet]. <https://twitter.com/jimmortensen/status/1060349618611924992>

- Murrar, Sohad and Brauer, Markus. (2018). Entertainment-education effectively reduces prejudice. *Group Processes & Intergroup Relations*, 21:7, 1053-1077. ResearchGate.
- NAACP (n.d.). National Association for the Advancement of Colored People. NAACP Hollywood Bureau. <https://www.naacp.org/campaigns/naacp-hollywood-bureau/>
- NAACP Image Awards (n.d.). 52nd NAACP Image Awards. <https://naacpimageawards.net/>
- Osborne, Bobby. (2013). An Examination of why Animation Should Target a Broader Demographic [Master's thesis, Savannah College of Art and Design]. SCAD Digital Collections.
- Paulus, Paul, van der Zee, Karen, and Kenworthy, Jared. (2016). Cultural Diversity and Team Creativity. In V. P. Glaveanu (Ed.), *The Palgrave Handbook of Creativity and Cultural Research*. (pp. 57-76). Palgrave Macmillan.
- Pixar Animation Studios (n.d.-a). Diversity, Inclusion, Belonging, & Outreach. <https://www.pixar.com/inclusion>
- Pixar Animation Studios (n.d.-b). Internships at Pixar. <https://www.pixar.com/internships>
- Rynda, Phil. [@philrynda]. (2020, May 29). I'll take on 5 black artist mentees for the next 12 months. We'll meet once a month (and figure out [Tweet]). <https://twitter.com/philrynda/status/1266554328405295105>
- Sandlin, Jennifer A., and Garlen, Julie C. (2017). Magic everywhere: Mapping the Disney curriculum. *Review of Education, Pedagogy, and Cultural Studies* (Apr.), 39:2, 190-219. ResearchGate.
- Sands, Lindsey. (2020). What goes into successful diversity and inclusion initiatives in entertainment? Lessons from advocates of creative talent [Master's thesis, Pepperdine University]. Pepperdine Digital Commons.
- Sarto, Dan. (2020, October 27). Secret Weapons Announces EbSynth Rotoscopy Automation Tool Beta. Animation World Network. <https://www.awn.com/news/secret-weapons-announces-ebsynth-rotoscopy-automation-tool-beta>
- Sayej, Nadja. (2020, July 28). What Black Voice Actors Want Hollywood to Do Next. Vulture. <https://www.vulture.com/article/black-voice-actors-hollywood-tv-whitewashing.html>
- Sherbin, Laura and Rashid, Ripa. (2017, February 1). Diversity Doesn't Stick Without Inclusion. Harvard Business Review. <https://hbr.org/2017/02/diversity-doesnt-stick-without-inclusion>
- Sisson, Dylan. (2020, October 18). Pixar's RenderMan: The Latest and Greatest. VIEW Conference. <https://www.viewconference.it/article/358/dylan-sisson-at-view-2020>

- Slate, Jenny. [@jennyslate]. (2020, June 24). I have come to the decision today that I can no longer play the character of “Missy” on the animated [Instagram post].
<https://www.instagram.com/p/CB1JISqFXT8/>
- Smith, Stacy, Choueiti, Mark, Pieper, Katherine, Case, Ariana, and Marsden, Justin. (2016). Inequality in 800 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT, and Disability from 2007-2015. *USC Annenberg Inclusion Initiative Review* (Sep.).
- Smith, Stacy, Choueiti, Mark, Pieper, Katherine, Case, Ariana, and Choi, Angel. (2018). Inequality in 1,100 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT & Disability from 2007 to 2017. *USC Annenberg Inclusion Initiative Review* (Jul.).
- Smith, Stacy, Choueiti, Mark, Pieper, Katherine, Clark, Hannah, Case, Ariana, Choi, Angel, and Yao, Kevin. (2019). Increasing Inclusion in Animation: Investigating Opportunities, Challenges, and the Classroom to the C-Suite Pipeline. *USC Annenberg Inclusion Initiative Review* (Jun.).
- Szekeres, Hanna, Shuman, Eric, and Saguy, Tamar. (2020). Views of sexual assault following #MeToo: The role of gender and individual differences. *Personality and Individual Differences*, 166. ScienceDirect.
- Tsui, Lisa. (2007). Effective Strategies to Increase Diversity in STEM Fields: A Review of the Research Literature. *The Journal of Negro Education*, 76:4, 555-581. JSTOR.
- Universal Global Talent Development and Inclusion. (n.d.). About.
<https://www.universaltalentdevelopment.com/about>
- Universal Pictures. (2019, November 13). Universal's Global Talent Development & Inclusion Group Launches Universal Animation Writers Program.
<https://www.universalpictures.com/news/universal-global-talent-development-and-inclusion-group-launches-universal-animation-program>
- The Walt Disney Company. (n.d.-a). Diversity & Inclusion.
<https://thewaltdisneycompany.com/diversity-inclusion/>
- The Walt Disney Company. (n.d.-b). Stories Matter.
<https://storiesmatter.thewaltdisneycompany.com/>
- VES (2019, September 26). Visual Effects Society. Visual Effects Society and Autodesk Launch New Initiative to Spotlight Diversity in VFX. <https://www.visualeffectssociety.com/press-releases/visual-effects-society-and-autodesk-launch-new-initiative-to-spotlight-diversity-in-vfx/>
- WarnerMedia. (n.d.). WarnerMedia Access Writers Program.
<https://warnermediaaccess.submittable.com/submit>

WIA (n.d.-a). Women in Animation. Our Mission. <https://womeninanimation.org/our-mission/>

WIA (n.d.-b). Women in Animation. WIA Mentorship Program.
<https://womeninanimation.org/mentorship/>

Wolpert, Stuart. (2020, October 06). Lack of diversity means box-office blues for Hollywood films, UCLA study shows. UCLA Newsroom. <https://newsroom.ucla.edu/releases/lack-of-diversity-means-box-office-blues-for-hollywood>

Yoshinori, Sugano. (1999). Manga and non-photorealistic rendering. *SIGGRAPH Computer Graphics* (Feb.), 33:1, 65-66. ACM Digital Library.