

# Montgomery 1960: Using Technology to Teach Empathy and Perspective Taking

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## INTRODUCTION

This fall, our team completed the story line of Eleanor Moody-Shepherd during the Alabama State College Student Sit-Ins. This experiential-learning curriculum tool teaches empathy and perspective-taking (the foundations of ethical and intercultural sensitivity) though immersion into a moment in history, namely those of 1960 Montgomery. We translated our teams' work into a prototype template of the immersive experience using an HTML5 development environment seeking to duplicate what the ARIS (Augmented Reality Interactive Storytelling) platform provides with customizable maps and without restriction to IOS devices.

## OBJECTIVES

Our ARIS and web-based game looks to provide an environment to experience another's lived leadership challenges while practicing ethical and intercultural leadership skills. Additionally, we seek to design an experiment mechanism to test the effectiveness of gamification in leadership education. Finally, we wish to quantify the effects of empathy and perspective-taking through gamification.

- Students develop ethical and intercultural competence when engaged in intentionally structured ethical learning experiences within a caring community that is supportive of self-authored and self-regulated expectations and acts of personal and social responsibility.<sup>1,2</sup>
- Mobile devices have been used in museums to present information to visitors through interactive activities to help expand user experiences<sup>3</sup>. It has also been proposed and shown that student use of mobile devices in university classrooms is beneficial and desirable to students across multiple cultures<sup>4</sup>.
- Empathy is, “a recognition of our humanity in the person of historical actors<sup>5</sup>,” while simultaneously opening, “every door to the possibility that those actors differ from us in ways so profound that we perpetually risk misunderstanding them.” Additionally, intercultural sensitivity and ethics can be gained while teaching in a historical context<sup>6</sup>.

## METHODS

Our research team partnered with the students of the Spring 2019 ARTD 352 (*Intermediate Graphic Design II*) class to explore concept designs for how the user interface of the immersive experience might appear to effectively delivery the historical content. The students completed their work with poster presentations at the Exhibition of Undergraduate Research and Creative Achievement (EURēCA).

The Summer 2019 interdisciplinary Game Design and Production Team made an action plan to create a usable prototype inside ARIS. This included the following: Game Process Design, Front and Back End Computer Programming, Graphic Design Images and Media, Historical Content Analysis and Delivery, and Audio-Visual Production.

Fall 2019 saw the team work to transform the ARIS game into a web-based platform in order to unlock new possibilities. The web platform allows us to more accurately present the historical data by using more primary sources. We are now able to more widely use video and audio files of the respective individuals thus allowing them to tell their own story.

## RESULTS

We have created a functional ARIS immersive experience template that allows for a mix of instructor-guided lessons and free-to-play elements. This mix of experience types gives the student the opportunity to take full advantage of the risk-free environment while still maintaining structure and prompting progressions through the lessons. The team organized the historical events into a framework of “Headlines” based on the theoretical dimensions of ethical action proposed by Rest<sup>7</sup> with the story told through the differing perspectives of the event’s primary historical actors (The Students of the Sit-in, the Governor, and the President of the College). The actors’ stories are presented as moral comparator case studies.

The completed prototype sequence follows the primary female student activist as she makes decisions regarding her participation in the student sit-ins at Alabama State College. The art designers generated artwork for the historical comparators and events and our graphic designers structured the users’ visual progression through the game. Our computer science team members integrated the existing ARIS platform into a web-based HTML5 platform to maximize the future possibilities of the game. This sequence will be replicated in communicating the experiences and decisions of additional comparators and serves as a base model for organizing and delivering all event “Headline” content. This content is curated by the whole team to make sure it meets both student and instructor standards.

## FUTURE RESEARCH

We will launch the game into Version 1.0 for testing with the ELPS 351 (*Personal and Social Responsible Leadership*) class during spring 2020. Research team members will continue generating data from historical primary sources to populate the application and website with moral comparator experiences in the 1960 Alabama State College Student Sit-Ins. With the completed Moody-Shepherd at the Courthouse scenario, we will examine the classroom relational environment facilitated by this approach and explore how those environmental factors influence ethical development when experienced through technology and a gamified pedagogy. Once the on-campus portions of the project are complete, we look to share the data collection and story-telling theoretical framework, game technology, and creation plans with other universities so they too can make campus specific immersive experiences to address issues they may be facing or wanting to investigate.

The Summer 2020 research will use a Participatory Action Research Approach reflecting marginalized student perspectives. This Approach will infuse historically disenfranchised voices into the 2.0 immersive experience. Additionally, the Summer 2020 researchers will transition fully to a web-based HTML5 platform taking with them everything that has been added to ARIS by the Fall 2019 team.

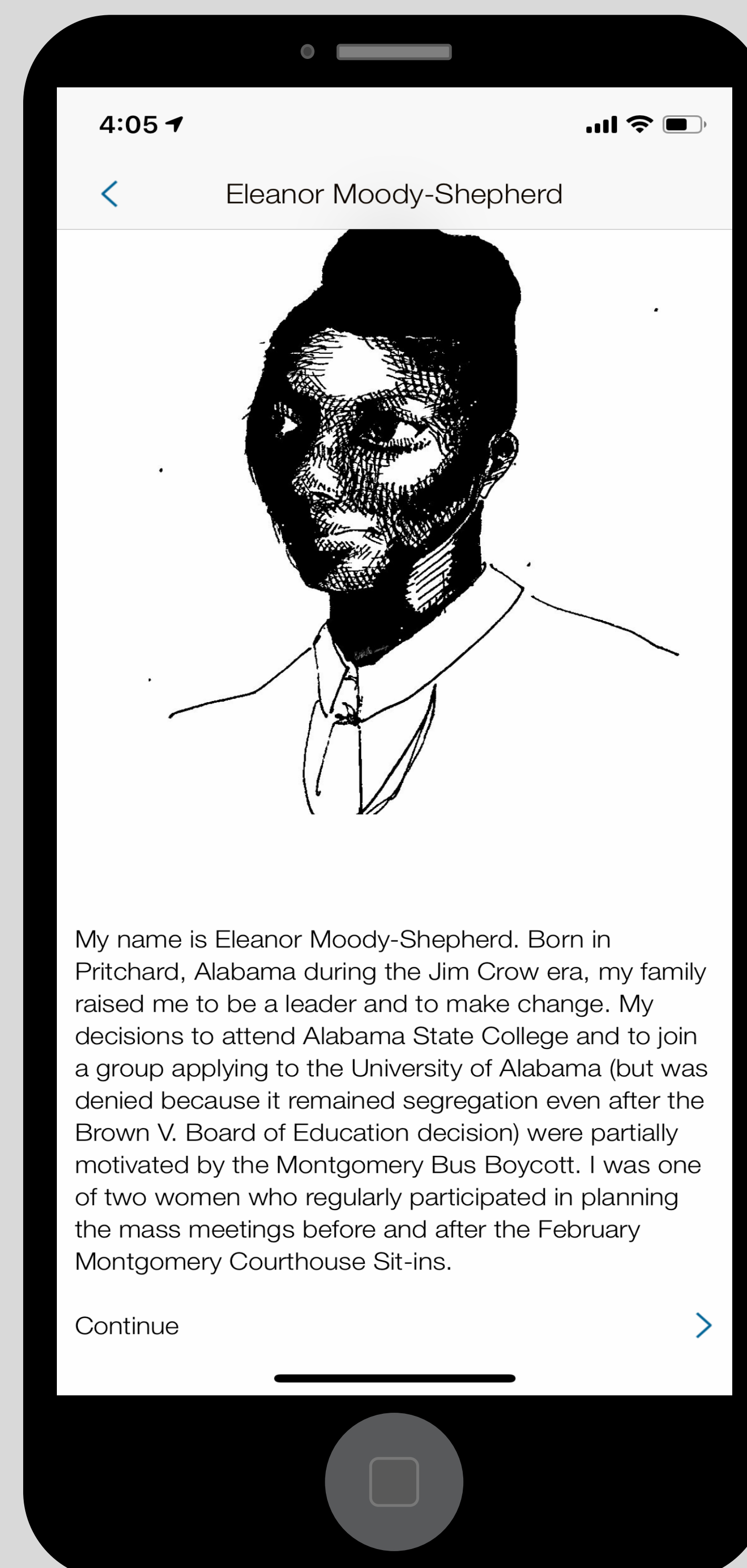
## ACKNOWLEDGEMENTS

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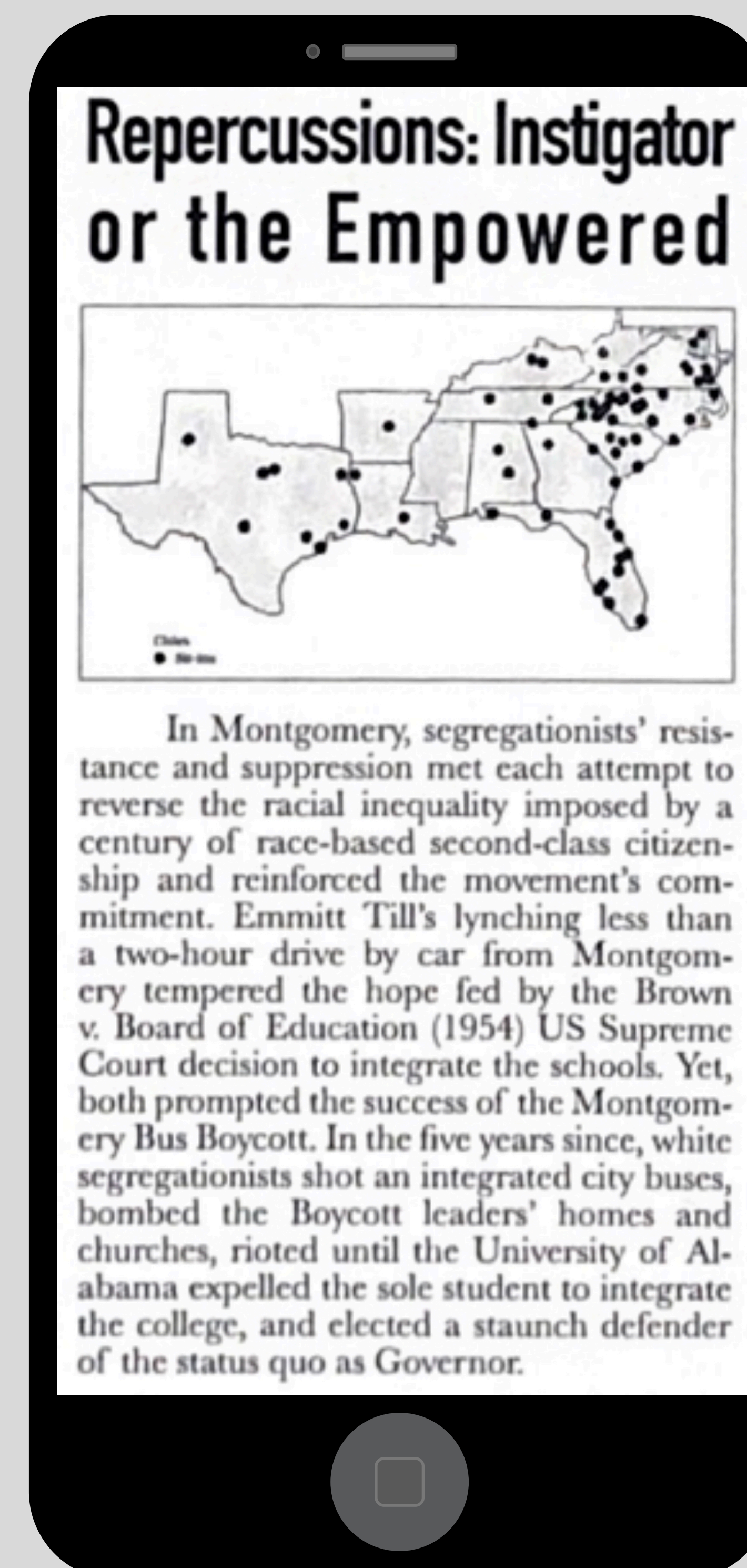
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## REFERENCES

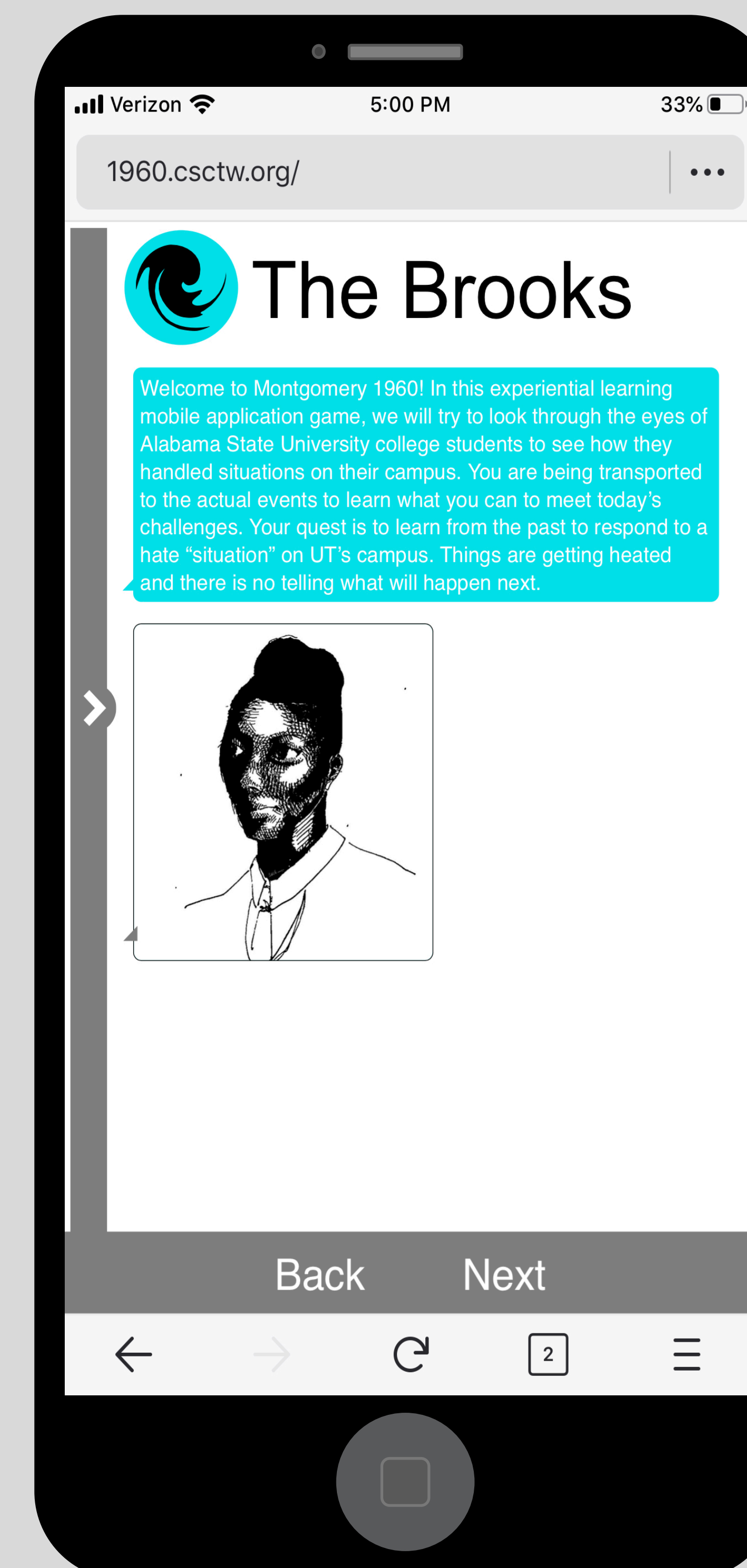
1. Perez, R. J., Shim, W., King, P. M., Baxter Magolda, M. B. (2015). Refining King and Baxter Magolda's model of intercultural maturity. *Journal of College Student Development*, 56(8), 759- 776.
2. Narvaez, D. (2006). Integrative ethical education. In M. Killen & J. Smetana (Eds.), *Handbook of Moral Development* (pp. 703-733). Mahwah, NJ: Erlbaum.
3. Voet, M., & Wever, B. D. (2016). Towards a differentiated and domain-specific view of educational technology: An exploratory study of history teachers' technology use. *British Journal of Educational Technology*, 48(6).
4. Biddix, J. P., Chung, C. J., & Park, H. W. (2015). The hybrid shift: Evidencing a student-driven restructuring of the college classroom. *Computers & Education*, 80, 162-175.
5. Seixas, P., & Peck, C. (2004). Teaching historical thinking. In A. Sears & I. Wright (Eds.), *Challenges and Prospects for Canadian Social Studies* (pp. 113). Vancouver: Pacific Educational Press.
6. Kassenoff, M. K., & Meinbach, A. M. (2004). Studying the holocaust through film and literature. *Norwood, MA: Christopher-Gordon Publishers*.
7. Rest, J., Narvaez, D., Bebeau, M. J., & Thomas, S., J. (1999). Postconventional moral thinking: A neo-Kohlbergina approach. Mahwah, NJ: Lawrence Erlbaum.



Eleanor Moody-Shepherd game sequence



Excerpt from the Montgomery Tribute magazine created for this immersive experience



HTML5 Prototype