

WHY WE CARE?

We want Black patrons to feel more welcome in the Garden

Currently, the Missouri Botanical Gardens' does not accurately have a welcoming atmosphere to certain individuals and that's something we want to better.

Research Hypothesis

THE IMPLEMENTATION OF QR CODES WITHIN THE MISSOURI BOTANICAL GARDENS WILL INCREASE COMMUNITY ENGAGEMENT FROM THE BLACK PATRONS THAT SURROUND THE GARDENS.

Summary of Evidence

Review Papers

Dissanayake, D. M. R., et al. "Social Media Marketing and Customer Engagement: A Review on Concepts and Empirical Contributions." *Kelaniya Journal of Management*, vol. 8, no. 1, July 2019, pp. 71–85. DOI.org (Crossref), <https://doi.org/10.4038/kjm.v8i1.7592>.

Yu, Yinan and Ramaprasad. "Engagement on Digital Platforms: A Theoretical Perspective." *ICIS 2019 Proceedings*, Nov. 2019, https://aisel.aisnet.org/icis2019/business_models/business_models/9.

Review papers showed that social media poses as a bridge to the community. Providing a safe place for people to share thoughts or even everyday life.

The patrons must feel a connection with what is being shared through said QR code which makes them more prone to wanting to use and spread the word to others.

We looked at different effects on digital engagement and how they affect each other.

Summary of Evidence Research Papers

Highlights the importance of the community being at the forefront.

QR codes positively influence learning outcomes

Stakeholders play a major role in the effectiveness of digital engagement

If the stakeholders of the establishment are on board, there is a higher chance of a domino effect occurring

Durak, Dr. Gurhan, et al. "QR CODES IN EDUCATION AND COMMUNICATION." Turkish Online Journal of Distance Education, vol. 17, Apr. 2016, pp. 42-58, <https://files.eric.ed.gov/fulltext/EJ1097236.pdf>.

Shin, Dong-Hee, et al. "The Psychology behind QR Codes: User Experience Perspective." Computers in Human Behavior, vol. 28, no. 4, July 2012, pp. 1417-26. DOI.org (Crossref), <https://doi.org/10.1016/j.chb.2012.03.004>.

Vigliaa, Giampaolo, et al. "The Determinants of Stakeholder Engagement in Digital Platforms." Journal of Business Research, vol. 89, 2018, pp. 404-10, <https://www.sciencedirect.com/science/article/pii/S0148296317305234>.

Miller, Gabe H., et al. "Discrimination and Black Social Media Use: Sites of Oppression and Expression." Sociology of Race and Ethnicity, vol. 7, no. 2, Apr. 2021, pp. 247-63. DOI.org (Crossref), <https://doi.org/10.1177/2332649220948179>.

Goodman, Melody S., et al. "EVALUATING COMMUNITY ENGAGEMENT IN RESEARCH: QUANTITATIVE MEASURE DEVELOPMENT." Journal of Community Psychology, vol. 45, no. 1, Jan. 2017, pp. 17-32. DOI.org (Crossref), <https://doi.org/10.1002/jcop.21828>.

Hui, Julie, et al. "Community Tech Workers: Scaffolding Digital Engagement Among Underserved Minority Businesses." Proceedings of the ACM on Human-Computer Interaction, vol. 7, no. CSCW2, Sept. 2023, pp. 1-25. DOI.org (Crossref), <https://doi.org/10.1145/3610180>.

Digital, S. Q. "The Evolution of Mobile Phones: A 30-Year Journey." Mazuma Blog, 22 May 2023, <https://www.mazumamobile.com/blog/technology/evolution-mobile-phones-30-year-journey/>.

Kavvadia, Leanne. "How Mobile Phones Have Changed over the Past 40 Years." Air IT, 18 Nov. 2020, <https://www.airit.co.uk/mobile-phones-over-the-years/>.

Summary of Evidence

Science Communication Articles

Highlights the digital divide between minorities and the access to internet

The uphand that white people have in Western society proves itself in the words of this article, highlighting the percentages of how many have people have computers and internet access, proving the purpose

“What Is Digital Engagement? What Drives Digital Customer Engagement?” Zendesk, 15 Apr. 2020, <https://www.zendesk.com/blog/digital-customer-engagement/>.

How to Close the Digital Divide in Black America | McKinsey. <https://www.mckinsey.com/industries/public-sector/our-insights/closing-the-digital-divide-in-black-america>.

Audiences were minority groups and educators

Proposed Experiment

What is being analyzed?

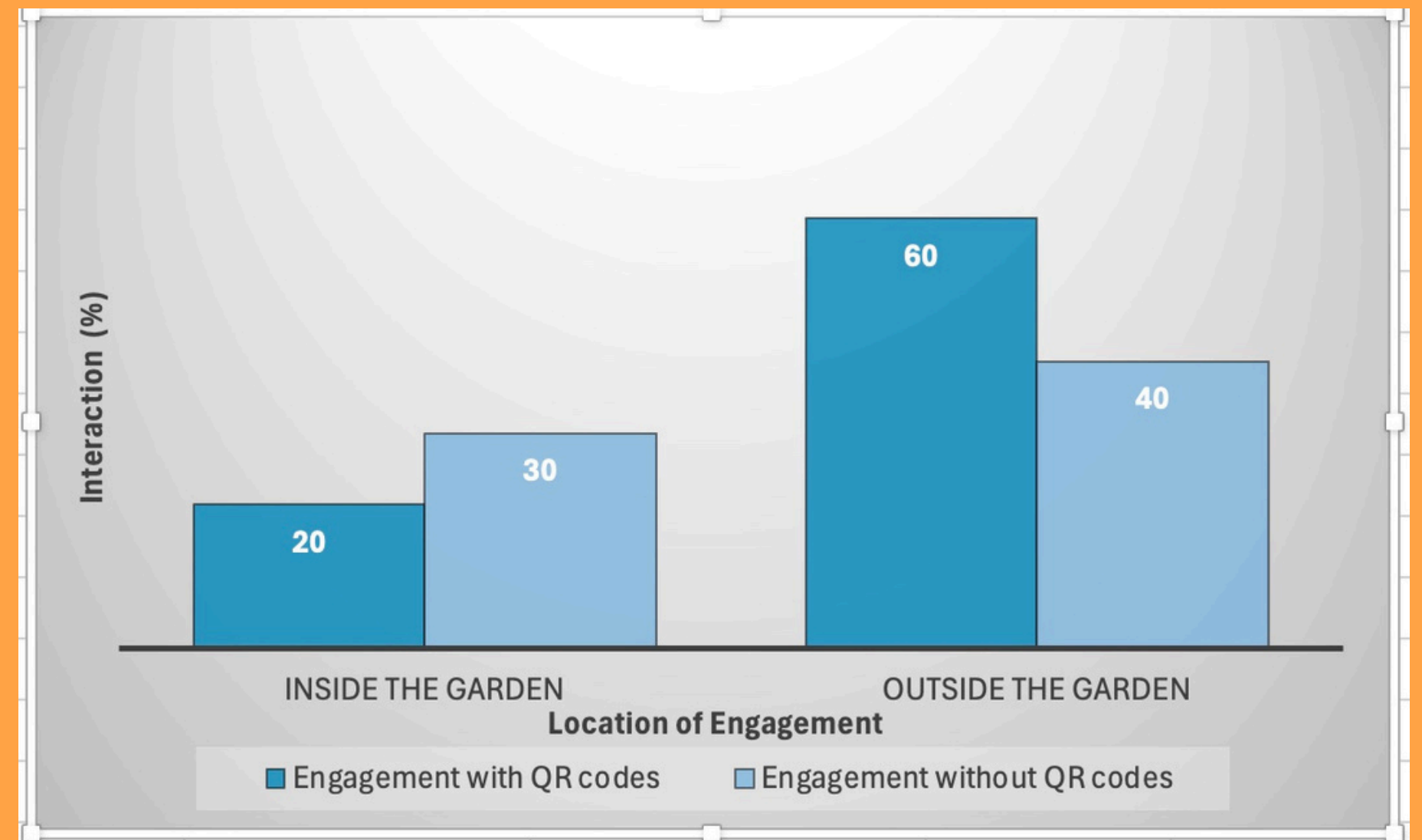
If the inclusion of QR codes positively affects digital engagement?

Dependent Variable: % of Interaction

Independent Variable: Location of QR codes

Results: Overall when comparing locations of QR codes, there is more interaction outside of the Garden

The inclusion of QR codes plays a larger role outside of the Garden compared to within the Garden



Summary & Reflection

The current program being used in the Missouri Botanical Gardens is one of the downsides of why there appears to be a lack of engagement

Moving to the future, with the implementation of our teams plans, this bridge between the Missouri Botanical Gardens and its surrounding communities will finally come together

Our research and data evidence supported our hypothesis that QR codes do in fact positively affect digital engagement

References

Digital, S. Q. “The Evolution of Mobile Phones: A 30-Year Journey.” Mazuma Blog, 22 May 2023, <https://www.mazumamobile.com/blog/technology/evolution-mobile-phones-30-year-journey/>.

Dissanayake, D. M. R., et al. “Social Media Marketing and Customer Engagement: A Review on Concepts and Empirical Contributions.” *Kelaniya Journal of Management*, vol. 8, no. 1, July 2019, pp. 71–85. DOI.org (Crossref), <https://doi.org/10.4038/kjm.v8i1.7592>.

Durak, Dr. Gurhan, et al. “QR CODES IN EDUCATION AND COMMUNICATION.” *Turkish Online Journal of Distance Education*, vol. 17, Apr. 2016, pp. 42–58, <https://files.eric.ed.gov/fulltext/EJ1097236.pdf>.

Goodman, Melody S., et al. “EVALUATING COMMUNITY ENGAGEMENT IN RESEARCH: QUANTITATIVE MEASURE DEVELOPMENT.” *Journal of Community Psychology*, vol. 45, no. 1, Jan. 2017, pp. 17–32. DOI.org (Crossref), <https://doi.org/10.1002/jcop.21828>.

How to Close the Digital Divide in Black America | McKinsey. <https://www.mckinsey.com/industries/public-sector/our-insights/closing-the-digital-divide-in-black-america>.

Hui, Julie, et al. “Community Tech Workers: Scaffolding Digital Engagement Among Underserved Minority Businesses.” *Proceedings of the ACM on Human-Computer Interaction*, vol. 7, no. CSCW2, Sept. 2023, pp. 1–25. DOI.org (Crossref), <https://doi.org/10.1145/3610180>.

Kavvadia, Leanne. “How Mobile Phones Have Changed over the Past 40 Years.” *Air IT*, 18 Nov. 2020, <https://www.airit.co.uk/mobile-phones-over-the-years/>.

Miller, Gabe H., et al. “Discrimination and Black Social Media Use: Sites of Oppression and Expression.” *Sociology of Race and Ethnicity*, vol. 7, no. 2, Apr. 2021, pp. 247–63. DOI.org (Crossref), <https://doi.org/10.1177/2332649220948179>.

Shin, Dong-Hee, et al. “The Psychology behind QR Codes: User Experience Perspective.” *Computers in Human Behavior*, vol. 28, no. 4, July 2012, pp. 1417–26. DOI.org (Crossref), <https://doi.org/10.1016/j.chb.2012.03.004>.

References Cont.

Vigliaa, Giampaolo, et al. “The Determinants of Stakeholder Engagement in Digital Platforms.” *Journal of Business Research*, vol. 89, 2018, pp. 404–10, <https://www.sciencedirect.com/science/article/pii/S0148296317305234>.

“What Is Digital Engagement? What Drives Digital Customer Engagement?” *Zendesk*, 15 Apr. 2020, <https://www.zendesk.com/blog/digital-customer-engagement/>.

Yu, Yinan and Ramaprasad. “Engagement on Digital Platforms: A Theoretical Perspective.” *ICIS 2019 Proceedings*, Nov. 2019, https://aisel.aisnet.org/icis2019/business_models/business_models/9.