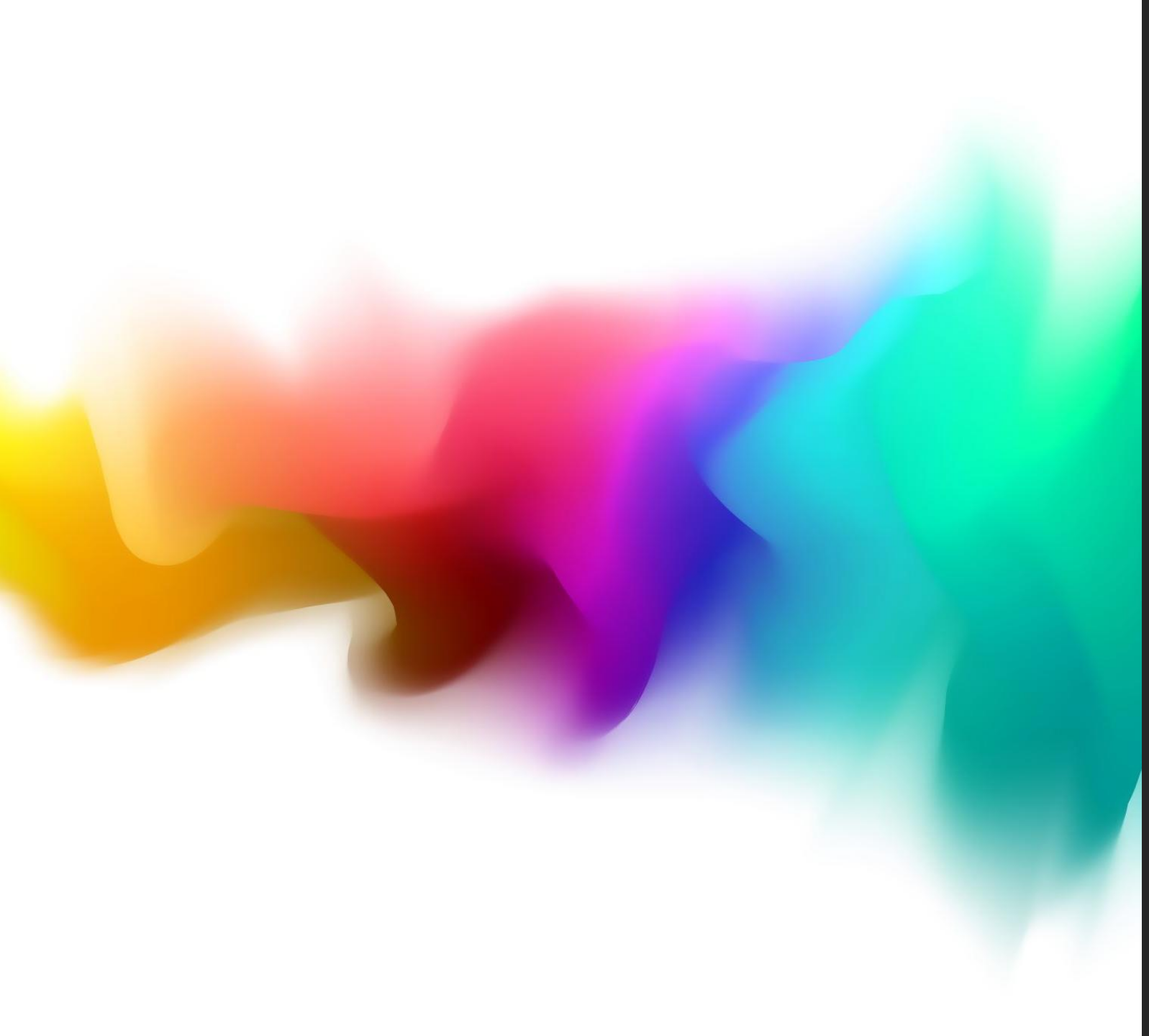

Wearables in Healthcare

TEAM – DATA BUZZ

SHONIL DABREO

MARK PEREIRA

NITIN TUNDWAL

CHRISTANGEL FARGOSE

Wearables in Healthcare

- Heart rate
- Calories burnt
- Steps taken
- SPO2 level
- Making calls

Ethical Issues in wearable devices

- Privacy - claim of an individual or institution to determine for themselves when, how and up to what extent the information about them is communicated to others.
- Transparency - utilizing data with integrity so that individuals know what data is being collected, who has access to it, and how they're able to interact with it.

Detecting the bias

- Unfair models
- Incomplete training data could also result in algorithmic bias

Mitigating the bias

- Comparing the results of various groups
- Providing additional training
- Following government guidelines
- Use a bias impact statement
- Engaging users
- Consider the role of diversity

Possible trustworthy operations

- Companies must be more transparent about the data being collected.
- Educate the employees about privacy and data security.
- More companies be HIPAA compliant.

Conclusion

- The system should be responsibly designed with a purpose to avoid any unfortunate consequences to the people.
- Introducing more transparency

References

Wearable Devices: Keep Data Privacy In Check - InformationWeek. 2021. Available: https://www.informationweek.com/mobile/mobile-devices/wearable-devices-keep-data-privacy-in-check/a/d-id/1298085

Algorithmic bias detection and mitigation: Best practices and policies to reduce consumer harms. 2021. Available: https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms/?amp

“Ethics of wearables”, 2021. [Online]. Available: https://healthinformatics.uic.edu/blog/ethics-of-wearables/

“A look at privacy and security of Fitbit tracker”, 2021. [Online]. Available: https://www.researchgate.net/publication/332926208_A_Look_at_the_Security_and_Privacy_of_Fitbit_as_a_Health_Activity_Tracker