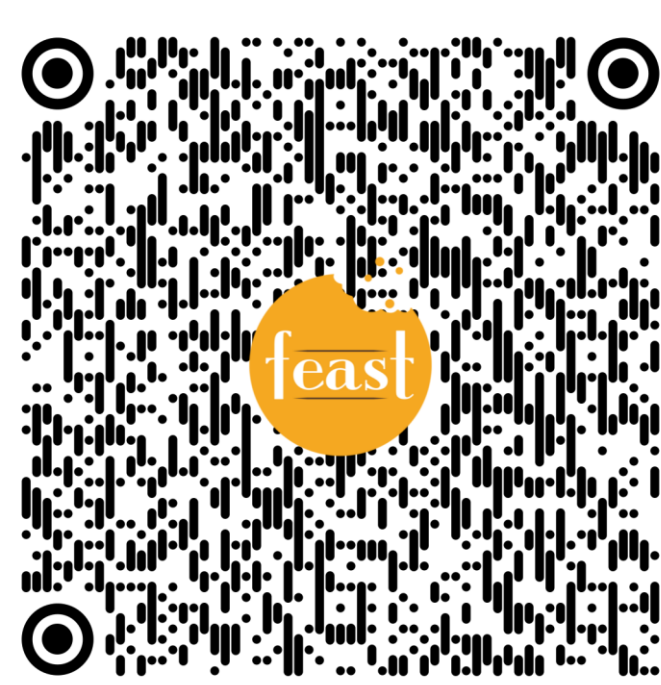




Simone Poggesi
Feast, Massey University
Palmerston North, New Zealand
s.poggesi@massey.ac.nz



Where will the Foodverse take us? A cross-cultural consumer study in Aotearoa-New Zealand

Simone Poggesi¹, Rosie Linklater¹,
Joanne Hort^{1,2}
¹Feast, Massey University, New Zealand
²Riddet Institute, Massey University, New Zealand

Introduction

- Metaverse**¹ is a digital-3D reality merging physical and digital realities, enabling users to interact-share-explore immersive environments via VR-headsets. It creates virtual worlds and presents digital products and experiences.
- In the Metaverse, the **Foodverse**² has emerged as a dedicated space for integrated Metaverse Food experiences



Figure 1: Metaverse and Foodverse representation

Aim: To obtain consumer insights in the Metaverse and specifically in the FoodVerse.

Results



Opportunities

- Enhance global connectivity through engaging virtual interactions (e.g., social gathering, family meetups).
- Opportunity for business to enhance collaboration and connectivity (e.g., access remote expertise).
- Improve remote education & training on practical skills.
- Enable immersive simulations and gaming experiences.
- Promote & share cultural traditions and heritage.

METaverse



Challenges

- Limited realism: cartoon-like environments/avatars.
- Lack of non-verbal communication: facial expression, body language,
- Risk of sensory overload and motion sickness.
- Blurred boundaries between professional and personal life.
- Connectivity limitations in remote areas.
- Potential for increased inequality, data security risks, and addiction.

Conclusions

Consumer-driven insights highlight Foodverse's transformative potential for food and hospitality sectors, offering a novel platform for sensory research, whilst underscoring key technical and ethical challenges that must be addressed.

References:

Images generated with Microsoft 365 Co-pilot AI
1. Mystakidis S. Metaverse. Encyclopedia. 2022;2(1):486-497; 2. Covaci A, et al. In: Proceedings 2023 CHI Conference Human Factors in Computing Systems. ACM; 2023:1-17; 3. Triandis, H. C. & Gelfand, M. J. (1998). J. Personality & Soc Psy, 74, 118-128; 4. Beekman, et al.. 2023. J. Food Sci 88: 5. Pliner P., and Hobden K. , 1992. Appetite 19(2):105-20; 6. Martínez-Córcoles M., et al. 2017. Tech in Soc 51:183-88; 7. Thomas F et al. 2019. Int J Human-Computer Interaction 35(6):456-67.

Materials & Method

- Four focus groups conducted, with participants (n 29) from different cultures in Aotearoa-New Zealand (A-NZ European and Indigenous Māori)
- Participants characterised: Individualism-collectivism³ scale, Analytic-holistic scale⁴, Food Neophobia scale⁵, Technophobia-Technophilia scale⁶ and Affinity for Technology Interaction (ATI) Scale⁷.
- Participants exposed to a Metaverse environment to prompt
- Focus group recording were transcribed using Whisper-X (python-based)
- Thematic analysis conducted in NVivo (hybrid deductive-inductive approach)

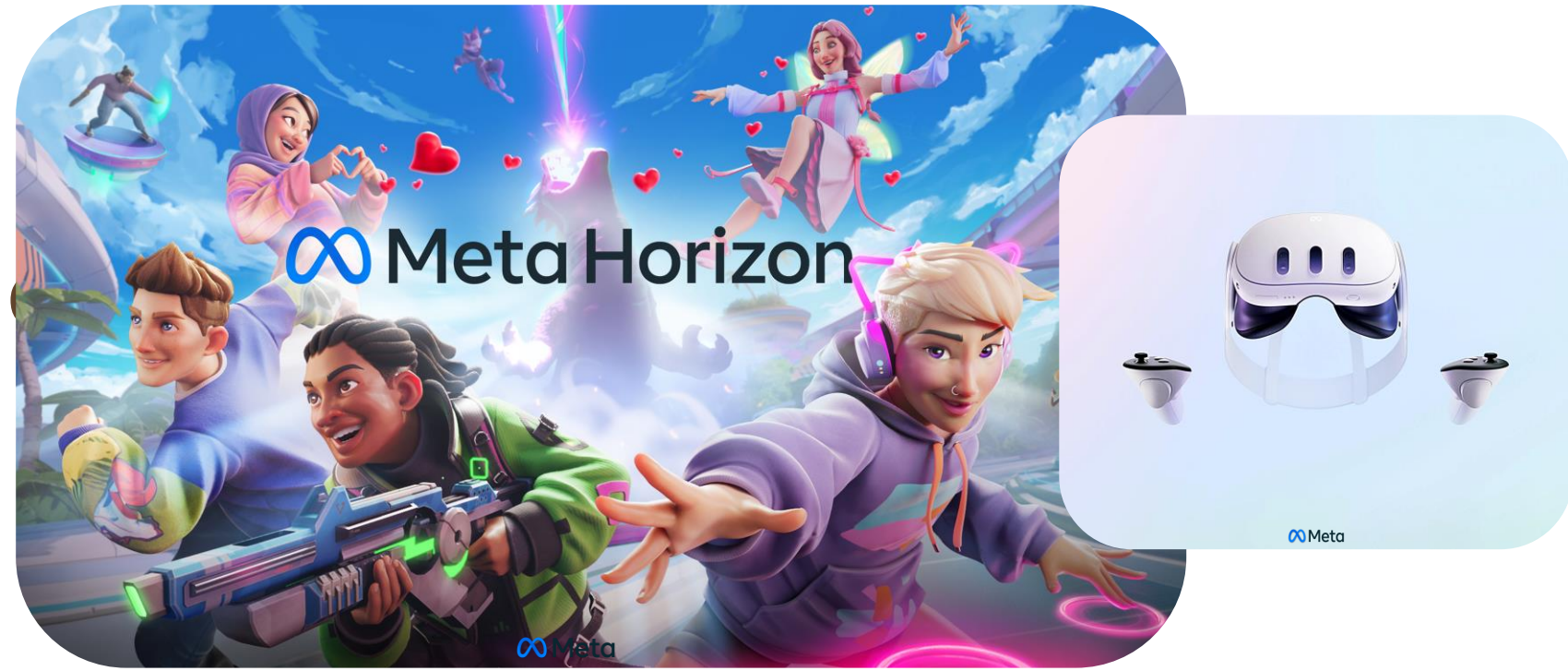


Figure 2: Meta Horizon World (left) and Meta Quest 3 VR-headset (right)

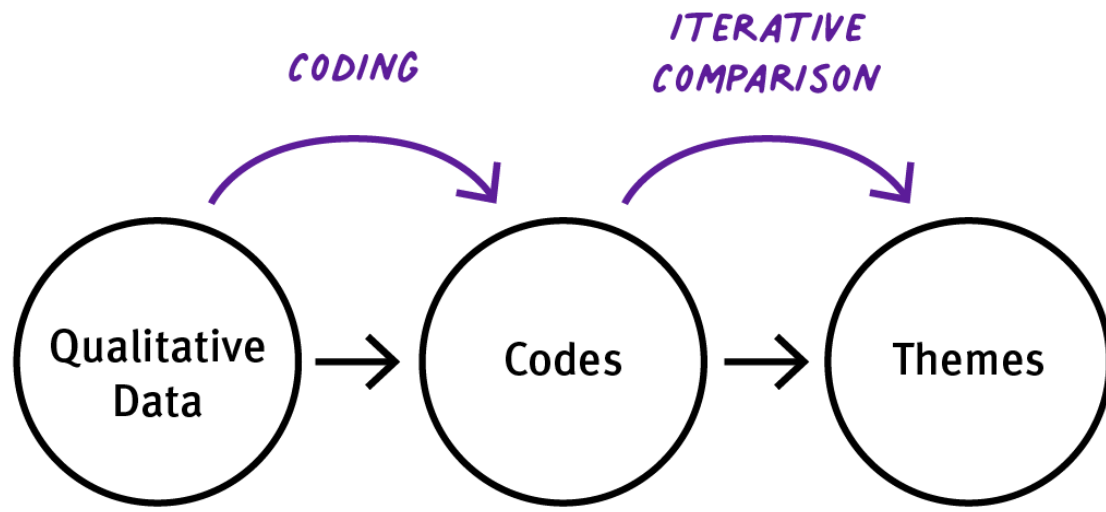
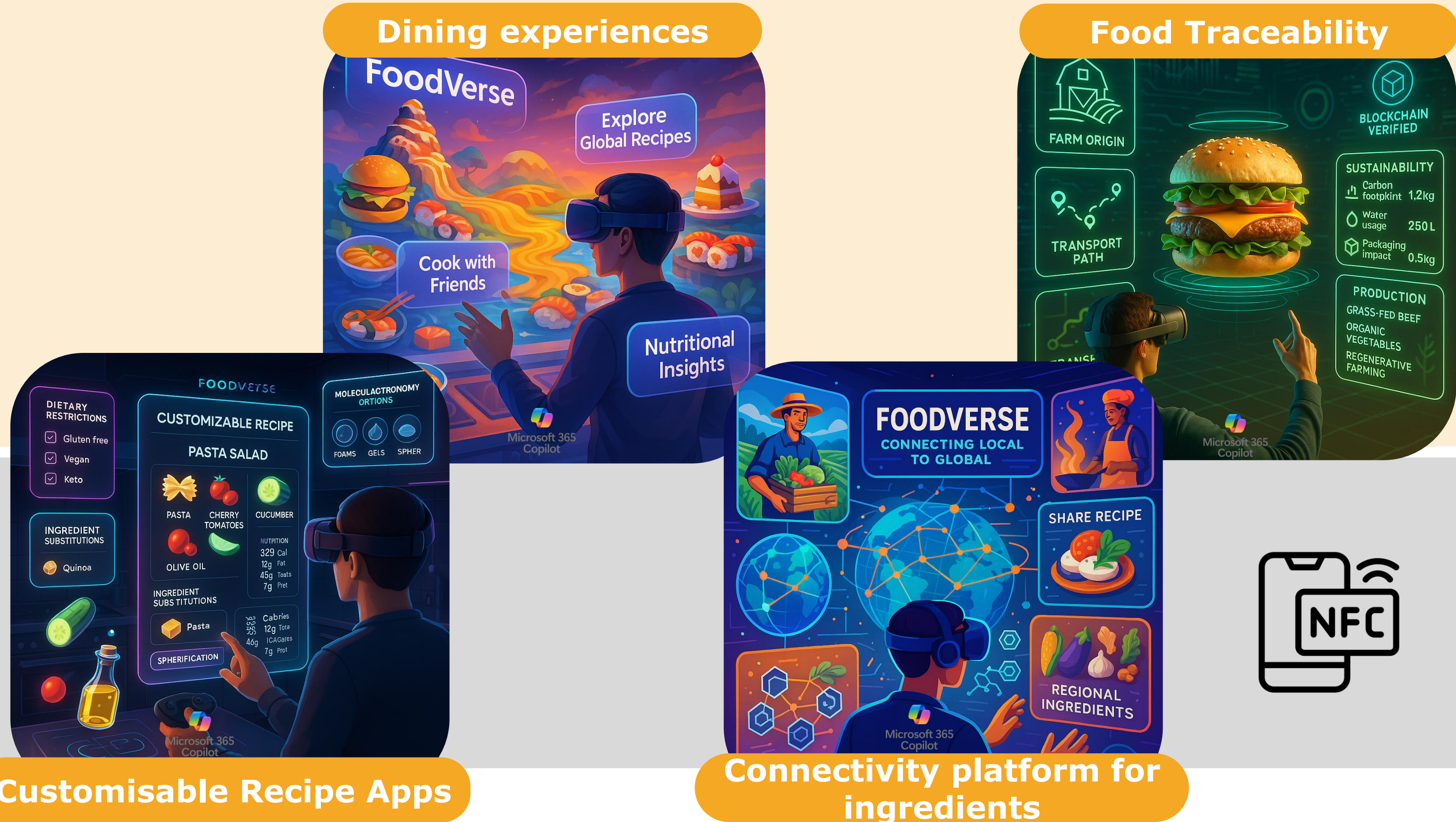


Figure 3: Thematic analysis coding step to themes scheme

FOODVERSE

- Social Dining & Entertainment:** enables virtual dining with others worldwide, including celebrities, using animated food to promote healthy eating.
- Food Understanding & Customisation:** offers interactive traceability, sustainability insights, and accommodates dietary needs, including molecular gastronomy.
- Marketing & Product Development:** supports food promotion, restaurant prototyping, and innovation via virtual experiences and a 3D marketplace for small producers.
- Research & Education:** facilitates immersive sensory analysis research and global sharing of cooking experiences and dishes.

Conceptual Software Applications



Funding:

This research is supported by REaDI 2024 funding from Massey University, through the School of Food Technology and Natural Sciences, College of Science.