

From clicks to constructs: Valorant player profiles & the link to motivation, experience, and wellbeing

1. Introduction

- In 2025, ~3.6 billion people play digital games[1]
- Playing games can have advantages like stress recovery[2], cognitive benefits[3], combating loneliness[4]
- There are also harms associated like exposure to toxicity[5,6], obsessive play leading to problematic gaming[7,8], and harmful design and monetisation[9]
- Differentiating when gaming leads to benefits versus harms is non-trivial
- Unpacking these complexities is important to help researchers build theories of player outcomes that can inform policy and guide various stakeholders
- We use clustering to find patterns of gaming behavior in Valorant and linking it to player motivations, experiences, and well-being outcomes

2. Methodology

- Data collection: created dataset with $N_g=1974$ Valorant players, of which, a smaller subset with $N_s=160$ participants (64 women, 88 men, 8 non-binary; ages 16-25) have self-report psychosocial data
- Exploratory Factor Analysis (EFA): data cleaning, then reduce dimensionality, finding 14 Latent Factors w/ EFA
- Latent Profile Analysis (LPA): discover eight profiles and confirm optimal solution and cluster stability
- Synthesis: relate eight profiles to self-report data and uncover valuable insights

3. Profile Memberships

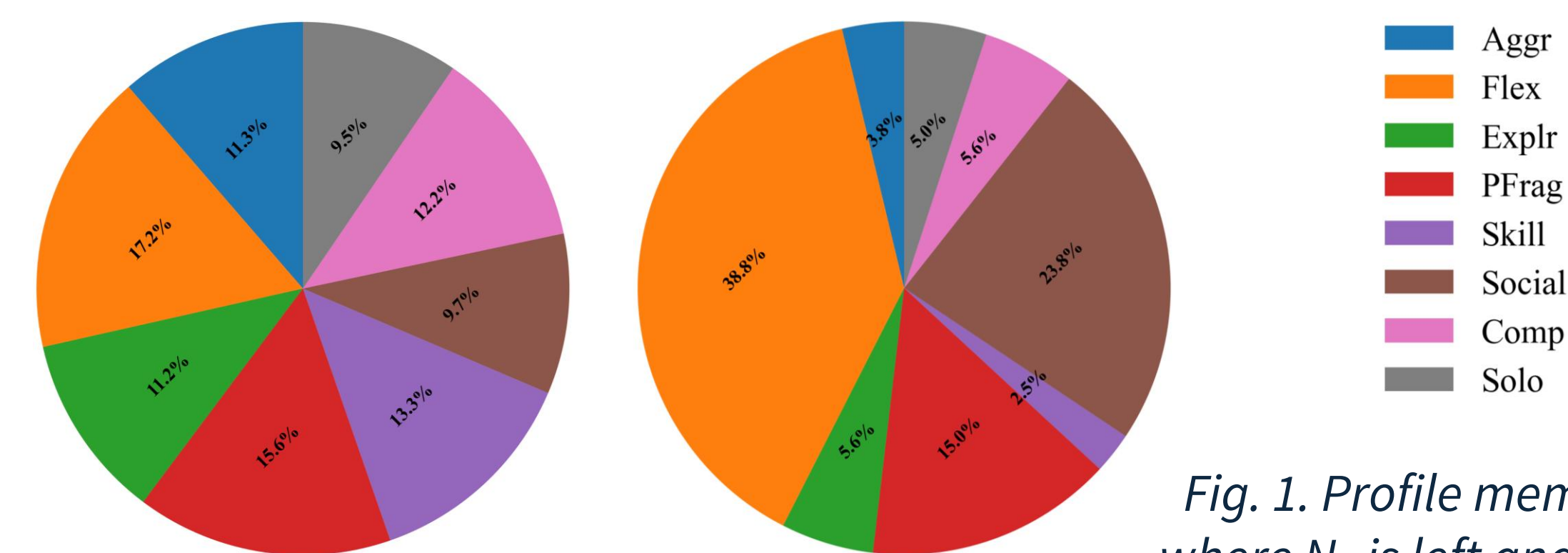


Fig. 1. Profile memberships where N_g is left and N_s is right

- 5/8 profiles have significantly fewer members proportionally (<10) with self-report data (N_s), so we focus on interpreting the profiles that have more members: Flex, PFRag, Social

References



4.1 In-game Profiles

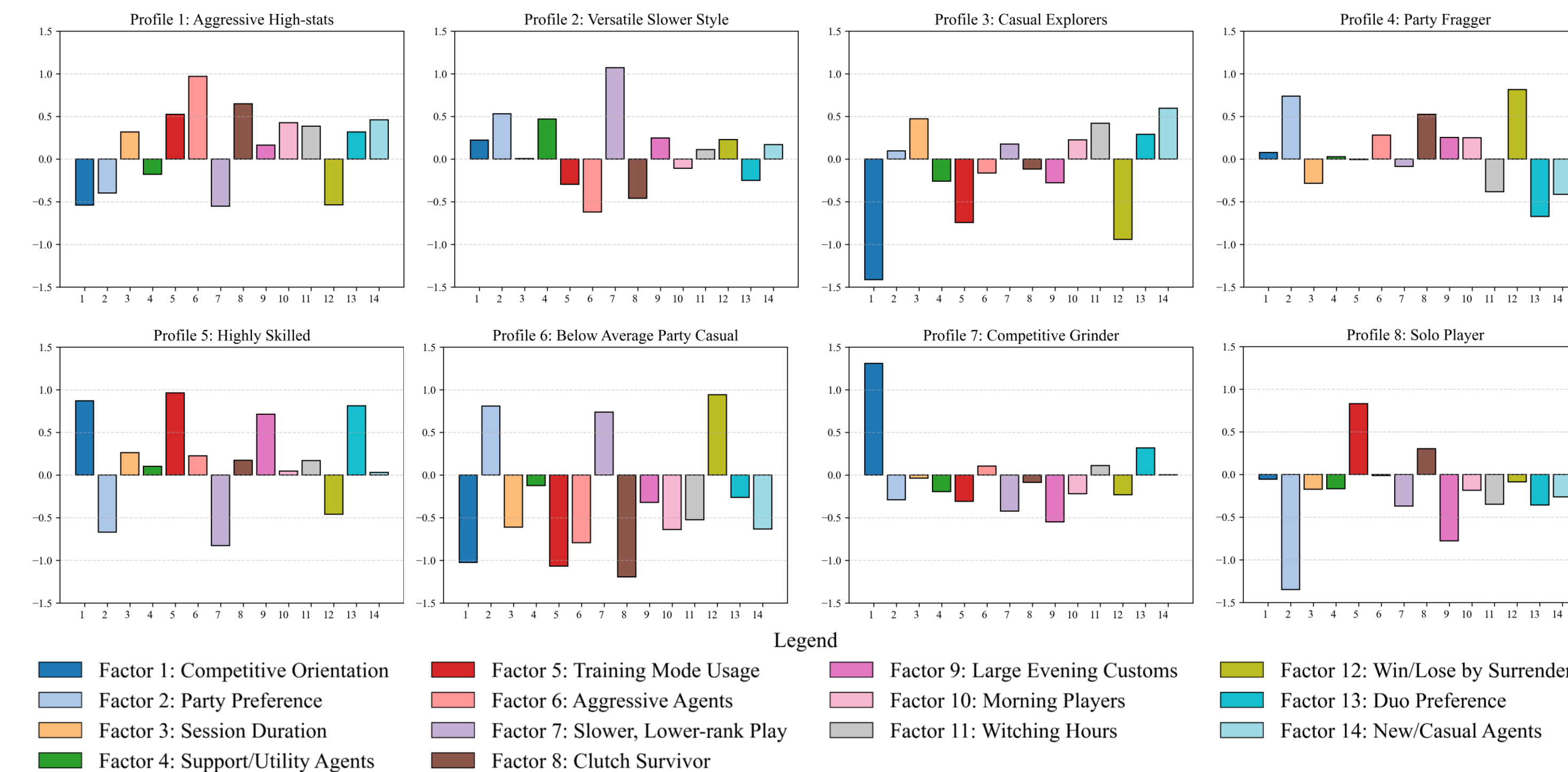


Fig. 2. LPA results displaying each profile's traits.

In-game Profile Descriptions			
1. Aggressive High-stats: <ul style="list-style-type: none"> Aggressive agents High in-game performance stats 	2. Versatile Slower Style: <ul style="list-style-type: none"> Varying roles/agents Slow playstyle Lower-ranked 	3. Casual Explorers: <ul style="list-style-type: none"> Casual game modes Newer/casual agents Recreational outlook 	4. Party Fraggers: <ul style="list-style-type: none"> Plays in bigger parties Good in-game stats and rank
5. Highly skilled: <ul style="list-style-type: none"> High amount of ranked and training modes Highest ranked 	6. Below Average Party Casual: <ul style="list-style-type: none"> Casual game modes Almost always in party Below average stats 	7. Competitive Grinder: <ul style="list-style-type: none"> Almost exclusively plays competitive Not as skilled as (5) 	8. Solo Player: <ul style="list-style-type: none"> Lots of solo & training Game as a solo activity, not a social one

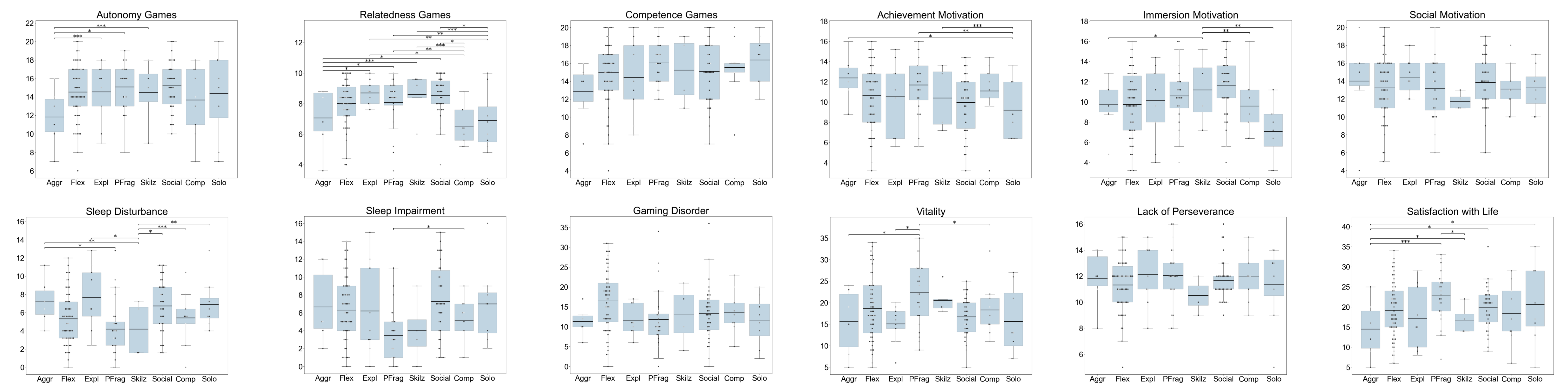


Fig. 3. Boxplots of psychosocial factors and profile membership

4. Results

4.2 Linking with Psychosocial data

Versatile Slower Style (Flex)

- Highest score for **Obsessive Passion and Gaming Disorder**
- Shows **Competence, Relatedness, Autonomy** satisfaction
- High **Social Motivation**
- Low **Lack of Perseverance, Sleep Disruption & Impairment**

Suggests

- Compulsive attachment and feeling *driven* to play the game
- Feedback loop of playing the game, needs are satisfied by it, want to play more, and repeat
- Negative outcomes haven't manifested (yet?)

Party Fraggers (PFRag)

- Highest **Vitality, Life Satisfaction**
- Lowest **Sleep Disruption and Sleep Impairment**
- High **Achievement Motivation**
- Shows **Competence, Autonomy, Relatedness** satisfaction

Suggests

- Gaming may be a source of energy and fulfillment
- Positive feedback loop of enjoying social play enhancing teamwork and performance resulting in in-game success and reinforcing social bonds and wellbeing

Below Average Party Casual (Social)

- High **Relatedness** satisfaction
- High **Social and Immersion Motivation**
- High level of **Harmonious and Obsessive Passion**
- High **Sleep Disturbance and Sleep Impairment**

Suggests

- Valorant as a social haven – goal of immersive community, not winning
- Want to get lost with others
- Desires an immersive social space possibly from low-wellbeing outside of the game

5. Discussion

- Difficult to make any causal claims with current study, but learned insights can guide further research like more targeted hypothesis testing and causal modelling to inform policies on gaming and wellbeing
- Commonly argued that certain games/genres are most harmful/problematic [10], but findings show that it's more about the context of how, when, why, and with whom you play
- Methodologically provides an approach to generate insights without fully labeled datasets

6. Limitations and Future Work

- Initial sample used to seed and create the game dataset is not necessarily representative of the global player base
- The dataset was collected over a shorter period -- can't determine deep causes or long-term effects
- Stability of player profiles over time is unknown i.e. would the profiles stay the same in a different "meta"
- Methodology is reliant on publicly-accessible APIs, but not all genres of games have them