



# Social Networks in Online Games: How they work and what they tell us.

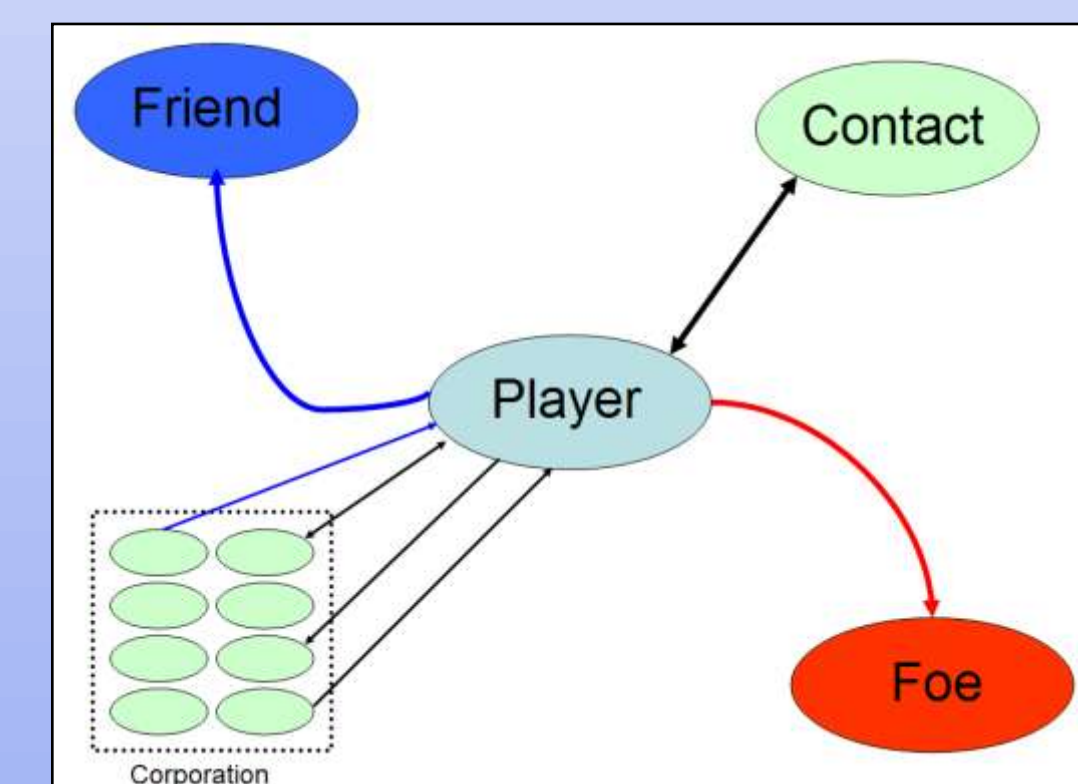
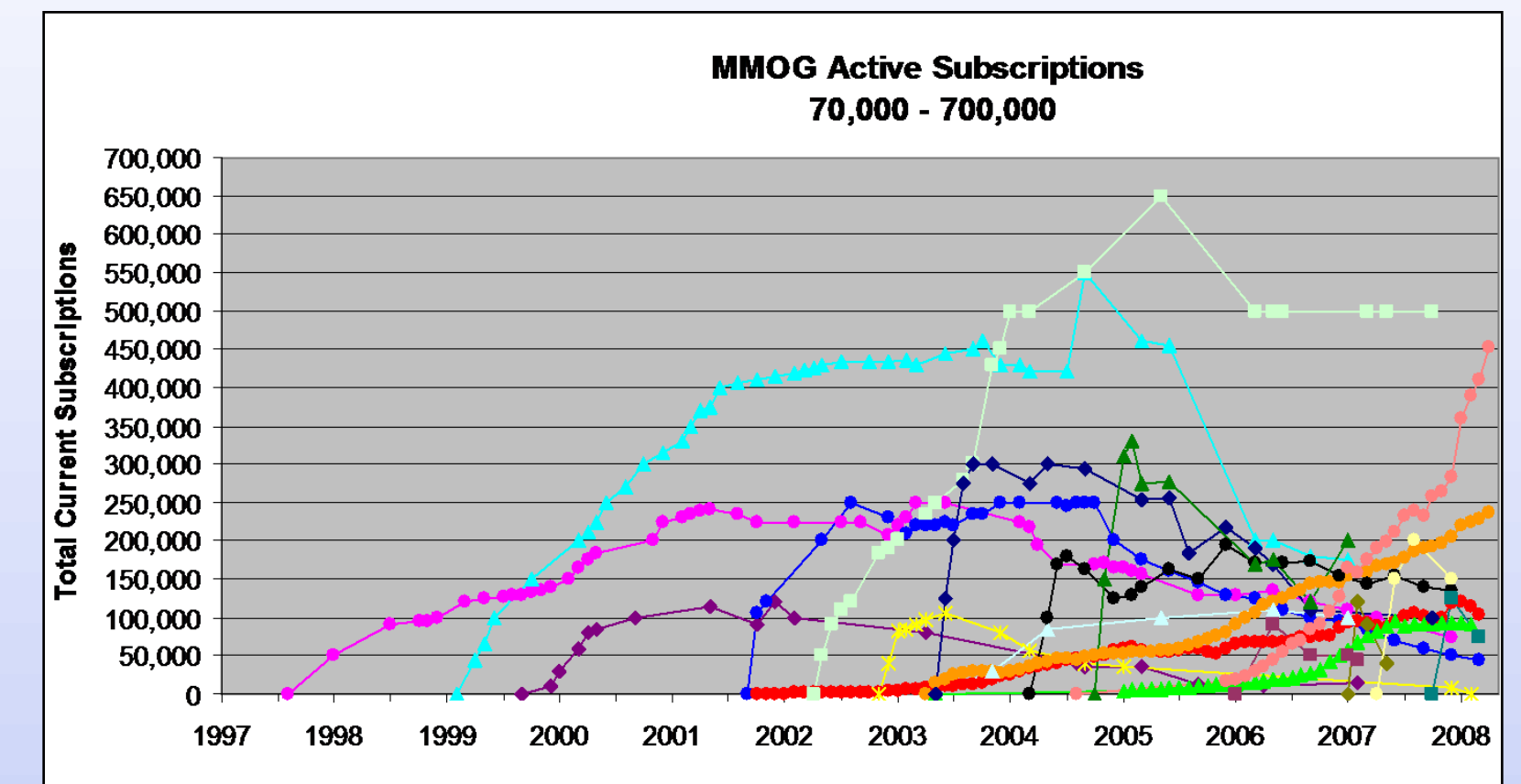
Ph.D. Program in  
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## Why Games?

- Online Games can be seen as models with certain real-world elements. They are...
  - **LARGE:** Successful MMORPGs have hundreds of thousands of players, extremely successful ones have more.
  - **IMMERSIVE:** Players invest significant amounts of time in developing characters and their positions in the virtual world.
  - **ECONOMIC:** Virtual worlds in MMORPGs have large, active economies that affect every member of the community.
  - **SOCIAL:** Success in many online games can be tied to one's social groups. People must associate for economic reasons, but also to perform better and access more of the content.
- If evaluated correctly and carefully, they can teach us information about the real world
- At CASOS, we are primarily interested in the social network structures in the game and how they affect interaction.



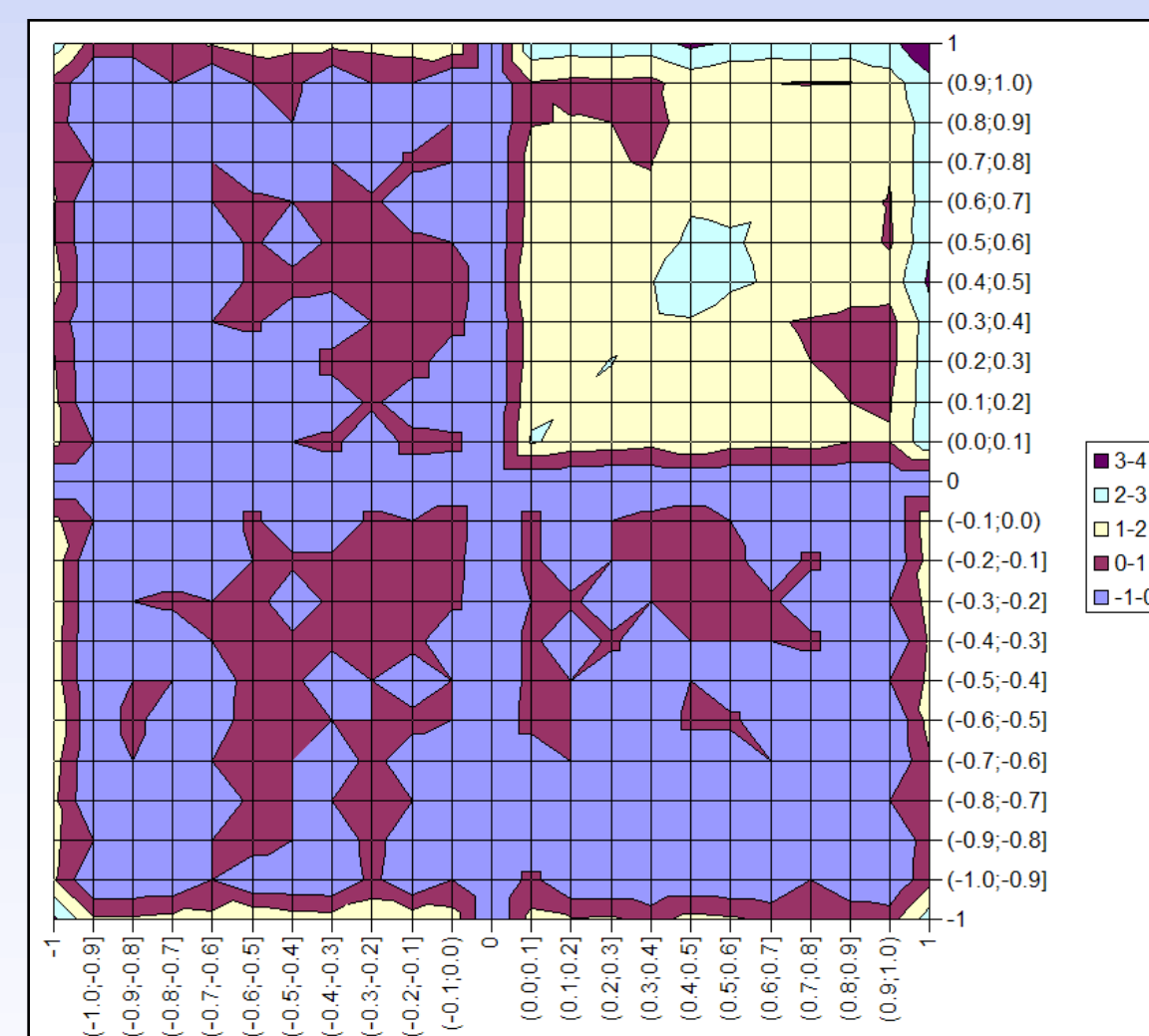
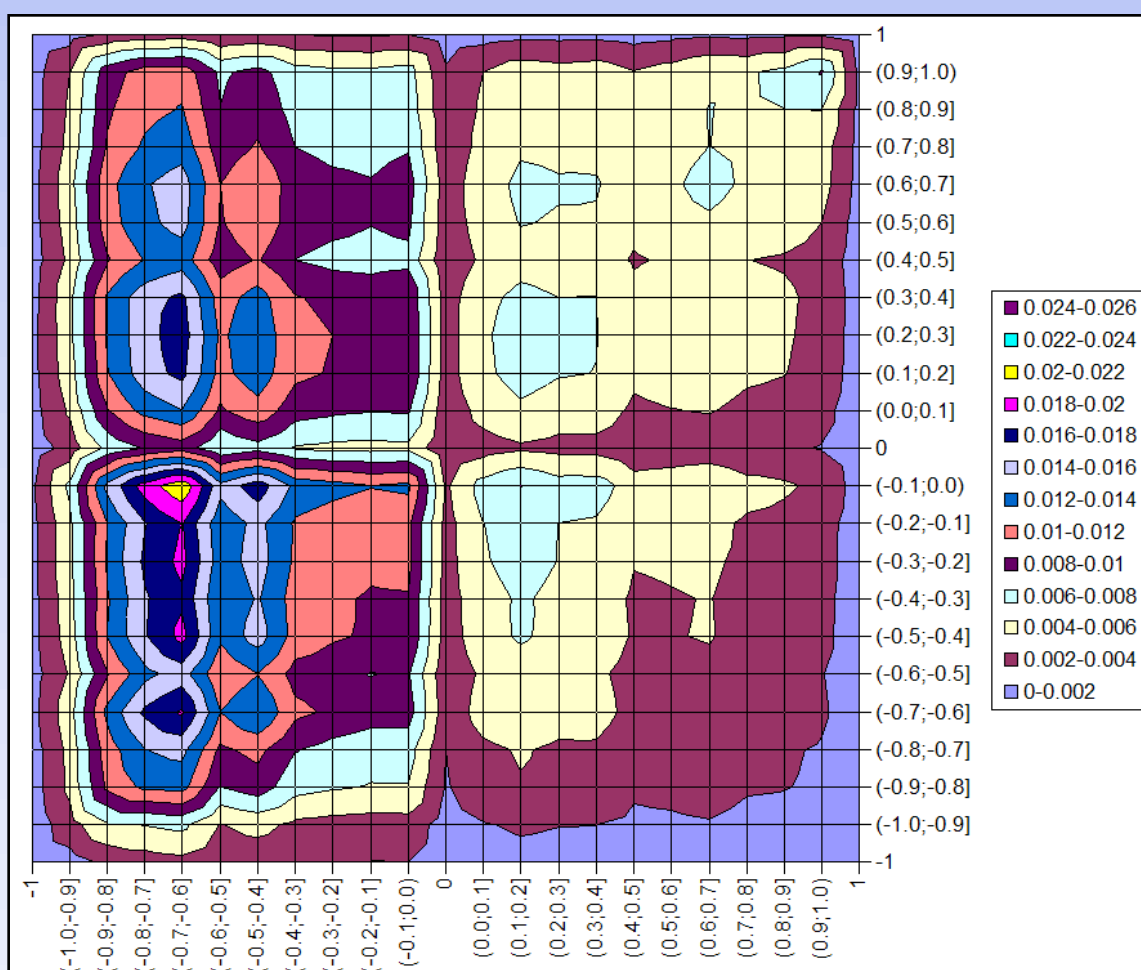
## The Present: EVE-Online

- 2,355,160 players in a non-sharded virtual world
- All roles in the economy are filled by players
- We have in-game rankings of players for each other
- We have records of which players have contacted which other players
- An ongoing analysis
  - One central connected component
  - ~1/4 of conversations were with "dumb terminals"
  - Strong correlation between rank and conversation frequency.
  - A collection of cliques across the data, none larger than size 8.
- One long-term goal: identifying the significance of in-game corporations.



## The Future: America's Army

- A first-person shooter based on a team structure with distinct roles.
- Multiple strategies for different maps with different objectives.
- Some players self-organize into teams that exist for many games
- By examining the players of AA, we hope to assess several things
  - How well long-term teams perform in comparison with ad-hoc teams
  - How player skills increase in proportion to play time
  - How teams deteriorate and grow over time



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