

The XFire Online Meta-Gaming Network: Observation and High-Level Analysis

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In-, Inter- Game relationships

- In-game relationships
 - Who is alliance of whom
 - Who killed whom
- Inter-game sessions relationships
 - Having fun played together?
 - He cheated?
 - Ladder and ranking

What's a meta-game?



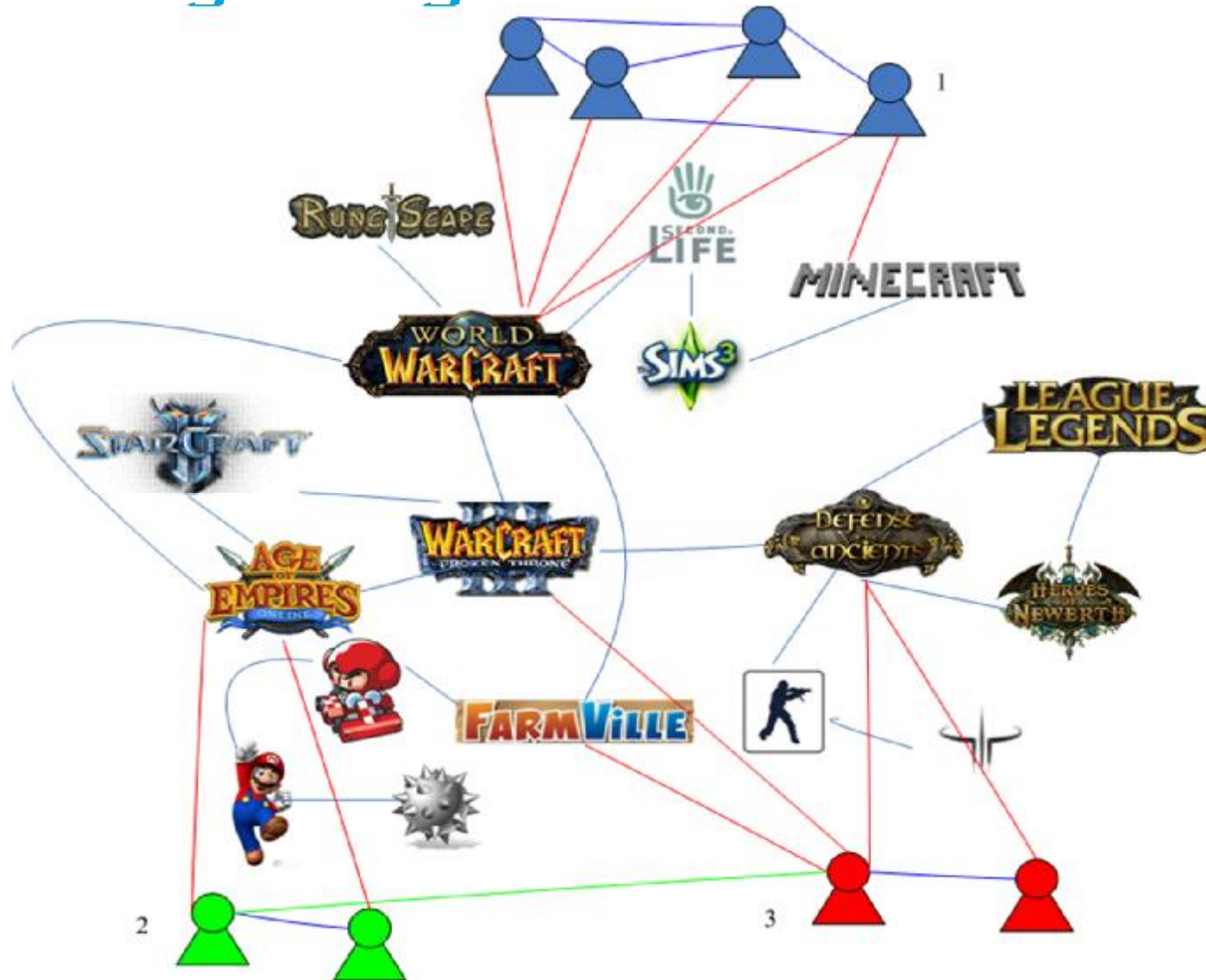
What's meta-game

- *“When you play a number of games, not as ends unto themselves but as parts of a larger game, you are participating in a metagame”*. Dr. Richard Gareld

What is Meta-gaming network

- Online social network allows its participants to manage their meta-game connections
 - Buddy
 - Guild/Clan
 - Messaging (instant)
 - File sharing, Screenshooting etc.

Meta-gaming network

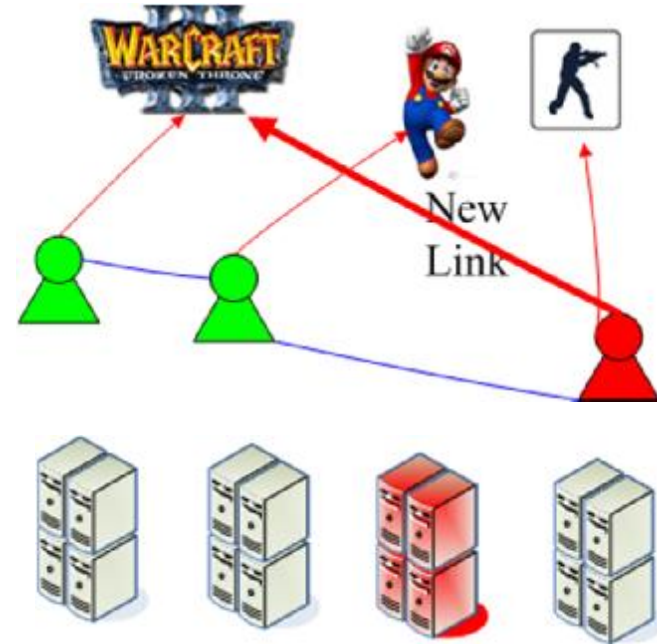


Understanding the characteristics of meta-gaming networks is important

- Volunteer-Computing for games
 - Resource sharing between games
 - alleviate P2P game churn
 - Leaving one game does not mean leave the meta-game network

Understanding the characteristics of meta-gaming networks is important

- Service recommendations



- Allowing game providers to support these platforms better

- Different nature of human community

Introduction

- Characteristics of meta-gaming networks remain relatively unknown
- **Research Question: What are the characteristics of an Online Meta-Gaming network?**

Overview

1. Introduction
- 2. Analysis method and dataset Description**
3. Characterization of XFire
4. Conclusion and Future work

Analysis method

- XFire
- Not affiliated with any game companies



Analysis method

- Observational studies
 - repeated cross-sectional
- Bootstrapping of data collection
 - Participant self-selection
 - Observing the participants to the discussions and media-sharing activities.
- Observed environment variables
 - Global network, gaming activity, user-generated content, social structure

Dataset description

	Bootstrap	Global Network	Player
Period	May 2008 to Sep 2010	Sep 2010 to Jun 2011	Sep 14–16 2010
Samples	1/hour	1/hour	1
Size [GB]	9.2	6.5	15.7
Players	65,908	<i>not applicable</i>	544,902
Game genres	25	25	<i>not applicable</i>
Games	1,100+	1,400+	<i>not applicable</i>

Overview

1. Introduction
2. Data collection method and dataset Description
- 3. Characterization of Xfire**
 - 1. Collectivity behavior**
 - 2. Player behavior**
 - 3. User-Generated content**
 - 4. Social structure**
4. Conclusion and Future work

Number of players

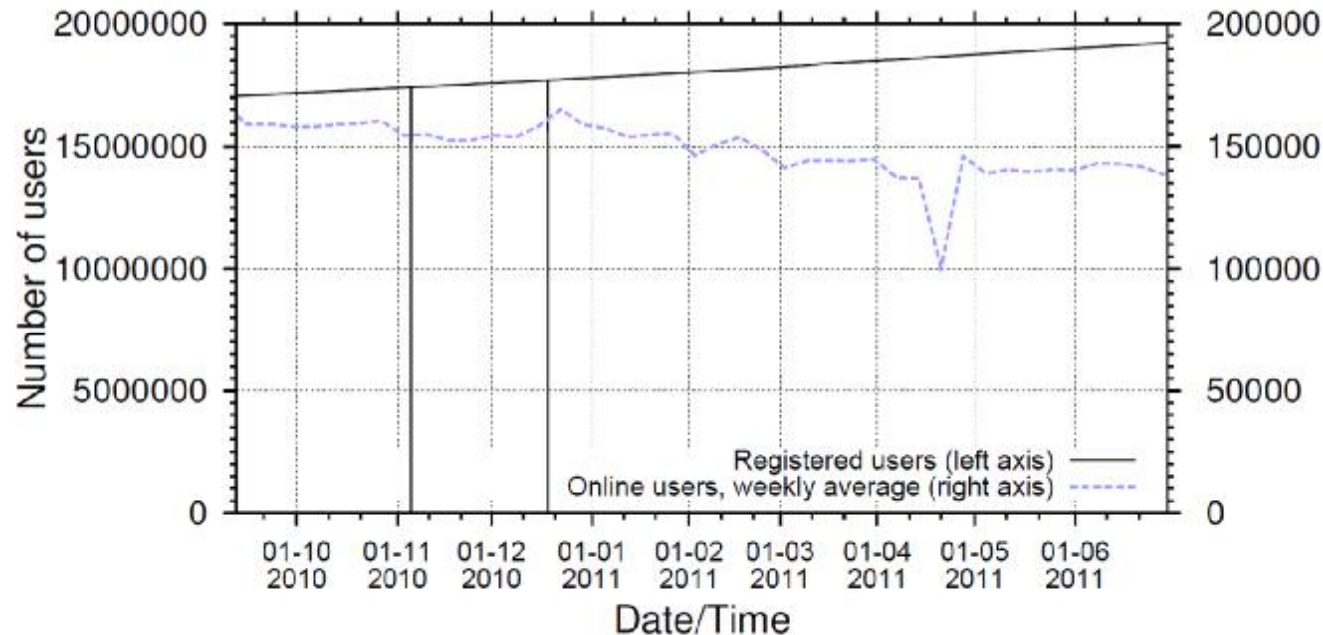


Fig. 1. Number of players registered and online, over time.

- Slowly growing community with about 20M players and 150,000 (0.8%) online players. BOINC 657,490
- Percentage of active players is higher than RuneScape (0.15%)

Collectively play time

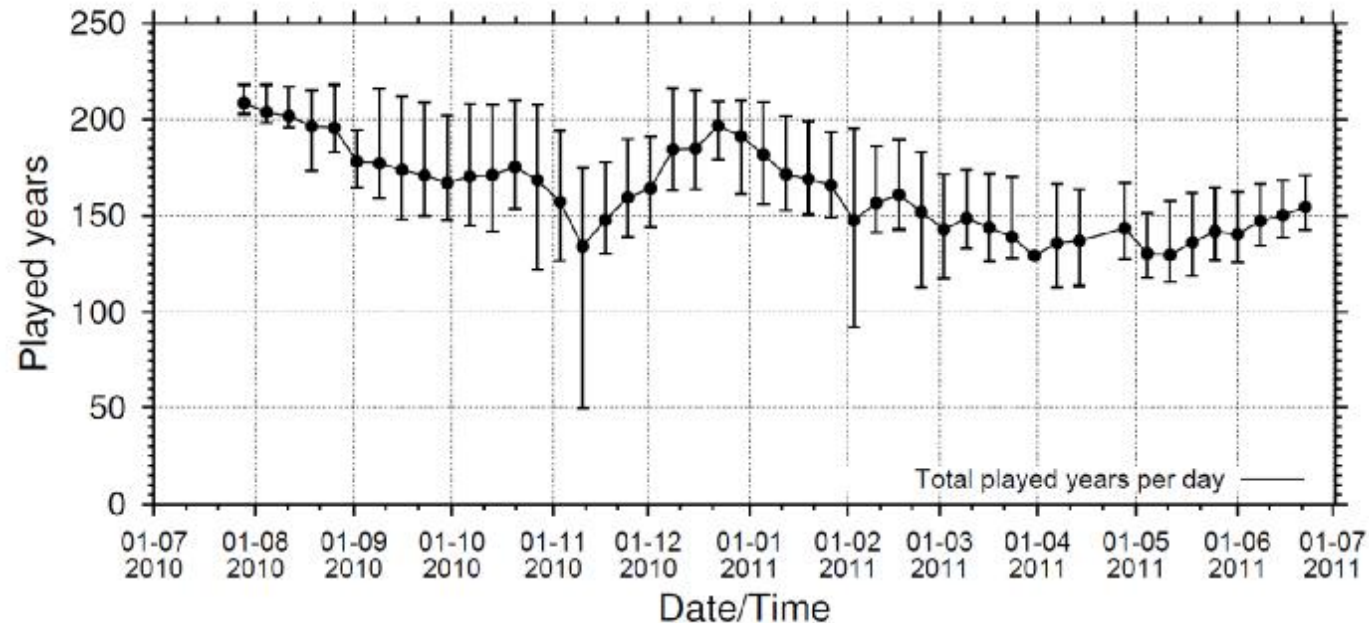


Fig. 2. Time spent collectively in games by the XFire community, per hour, over time. Curves represent weekly averages; error bars represent weekly minima and maxima.

- Players spend collectively over 100 years playing hourly.

Player activity: # of played games

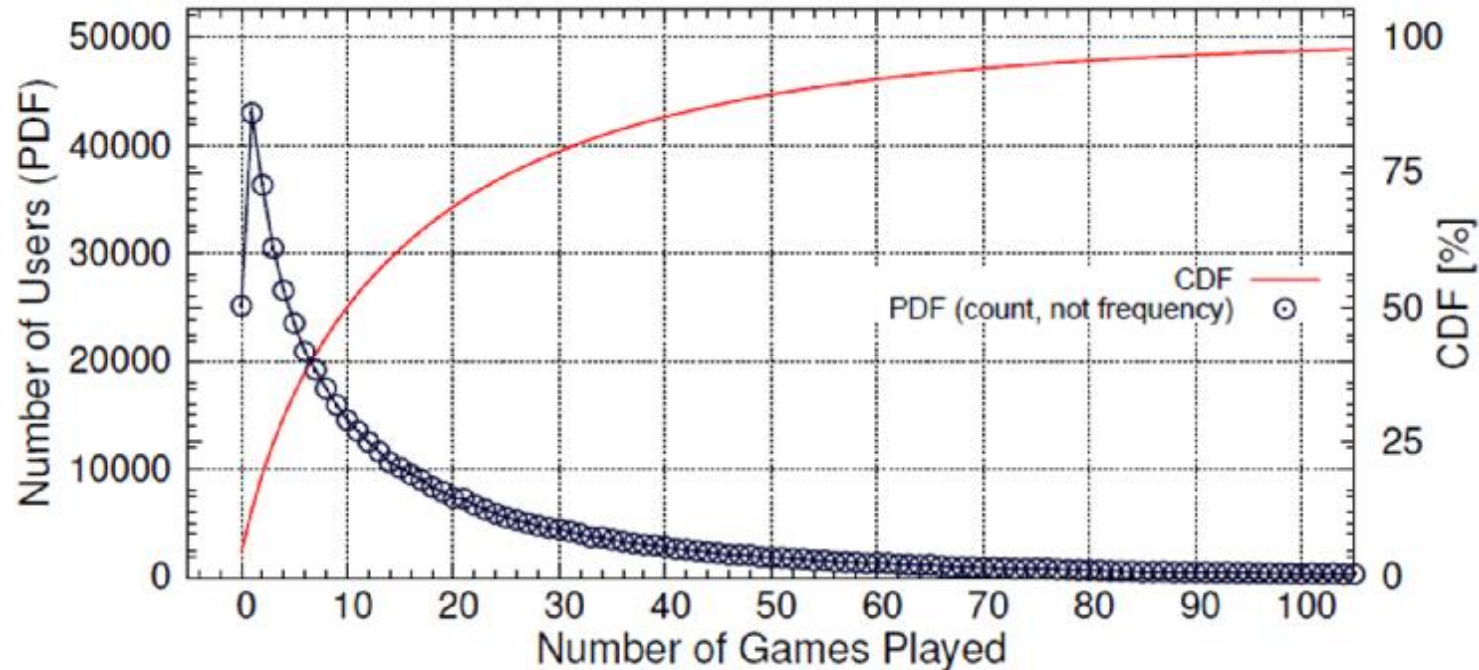
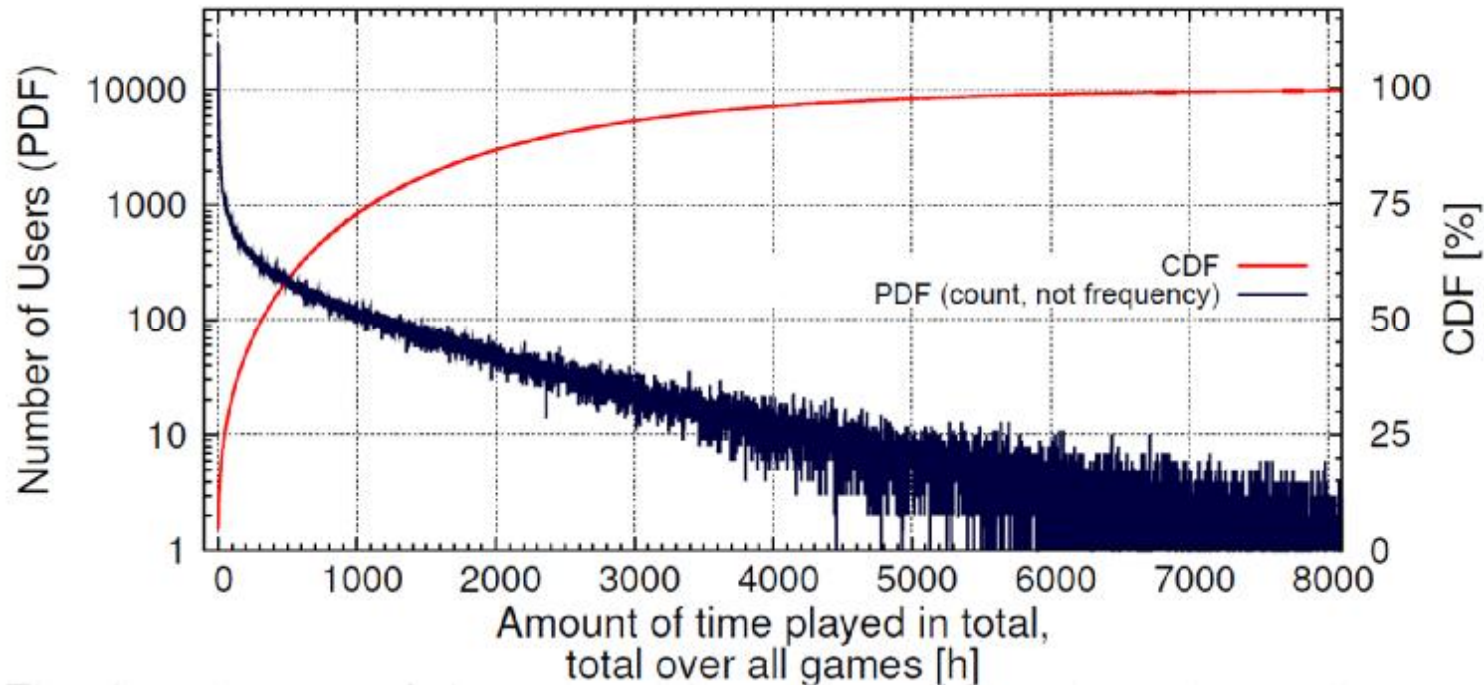


Fig. 3. Number of games played in total, per player.

- Mean 21, Max 1,989, 50% players play more than 10 games

Player activity: total play time



- Mean 875 hours, Over 25% played more than 1,000h
- 1,241 (0.228%) players spent over 10,000 hours in game (**duration of obtaining a Phd**)
- BOINC

User-generated content: Production

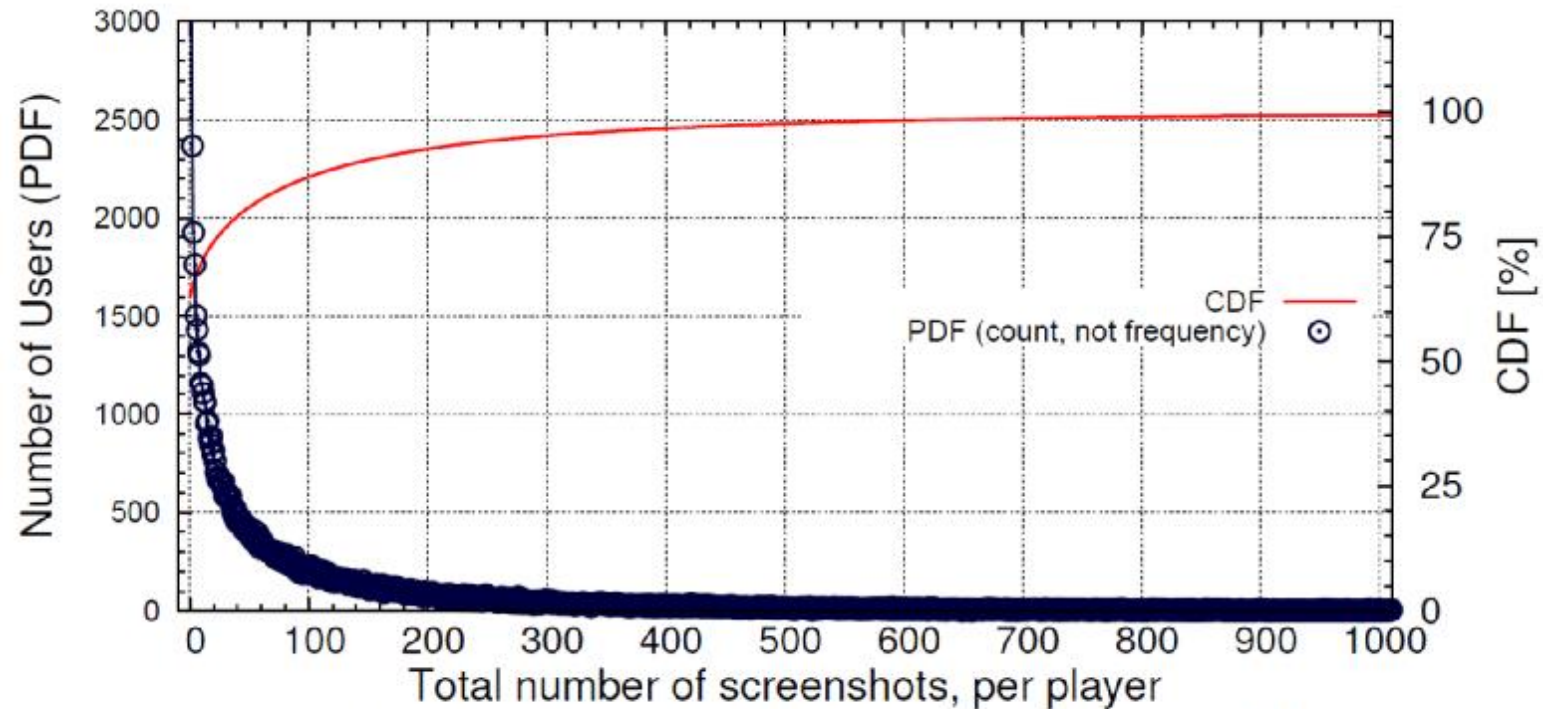


Fig. 6. Total number of published screenshots, per player.

- 60% players publish nothing, 80% less than 45, max 8,000

User-generated content: Consumption

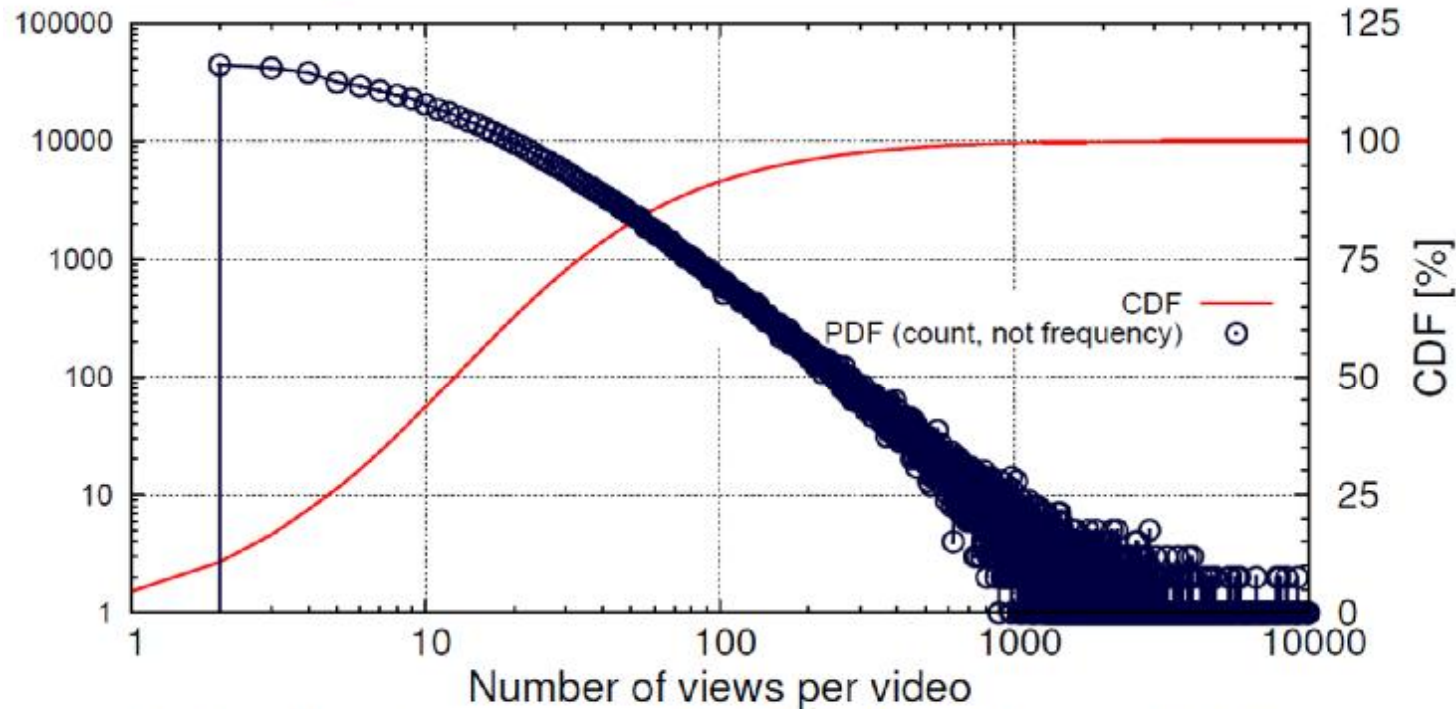


Fig. 7. Number of views of published videos, per player.

- Mean 53 times, 60% viewed <20, max 131,641

Social Structure: Structured communities

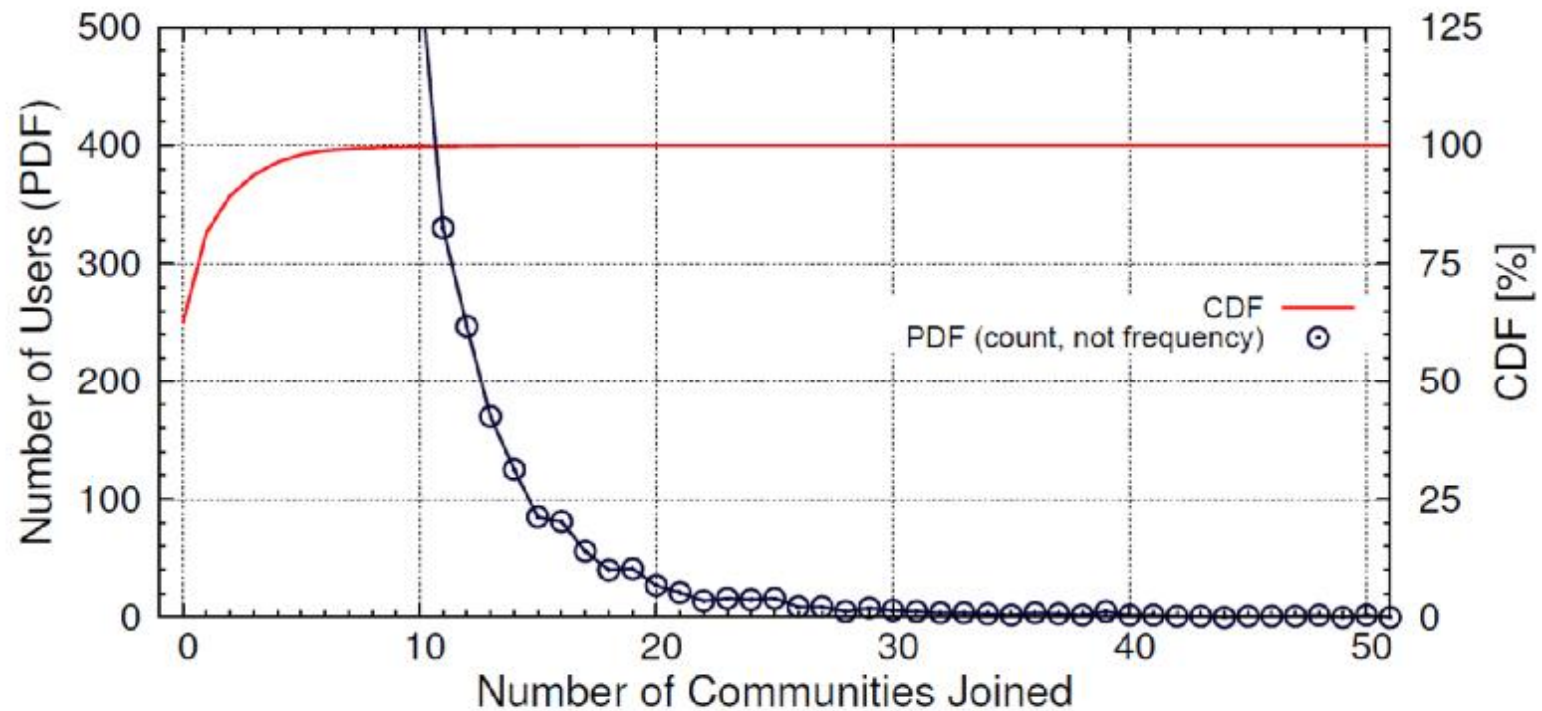
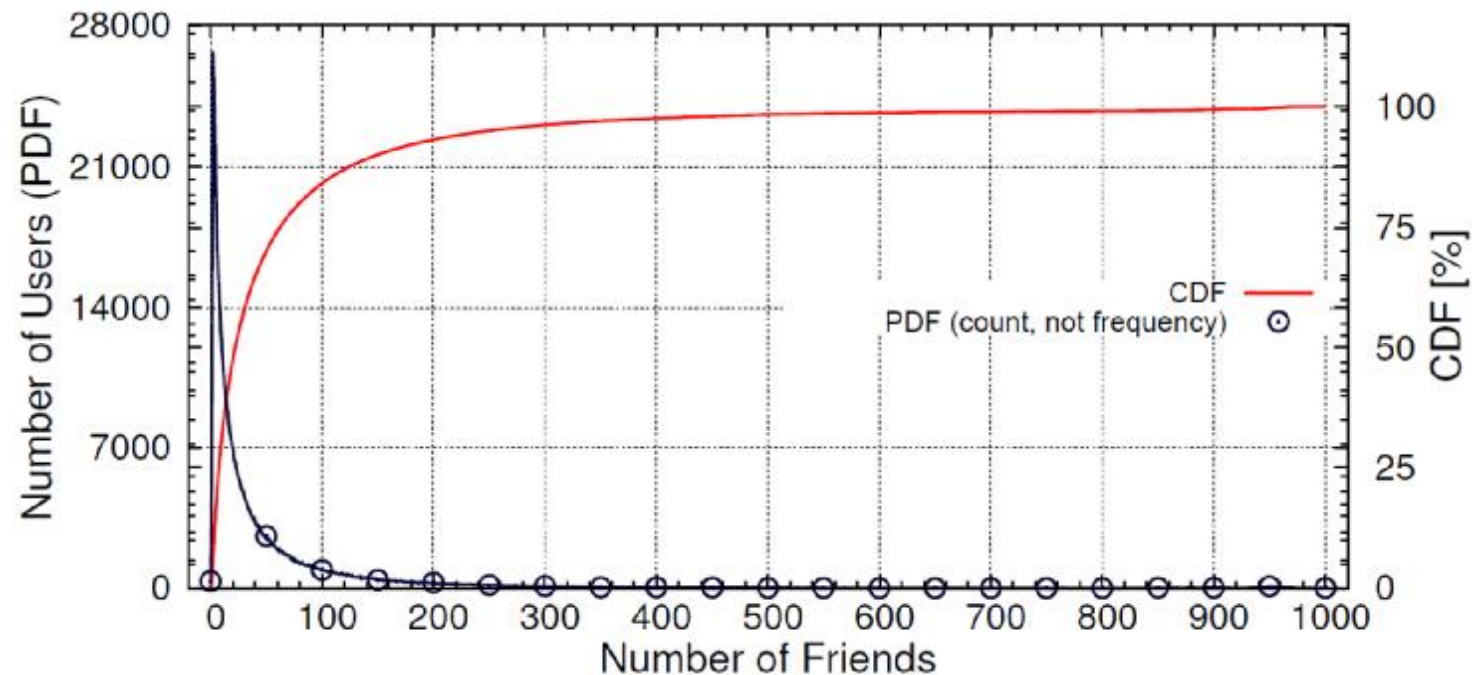


Fig. 8. Number of communities joined, per player.

- 60% players join none, max 246

Social Structure: Free-form communities



- Mean: 63 friends, 15% players have more than 100
- Facebook 130 friends
- Dota-league 4.5 buddies

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Conclusion & Future work

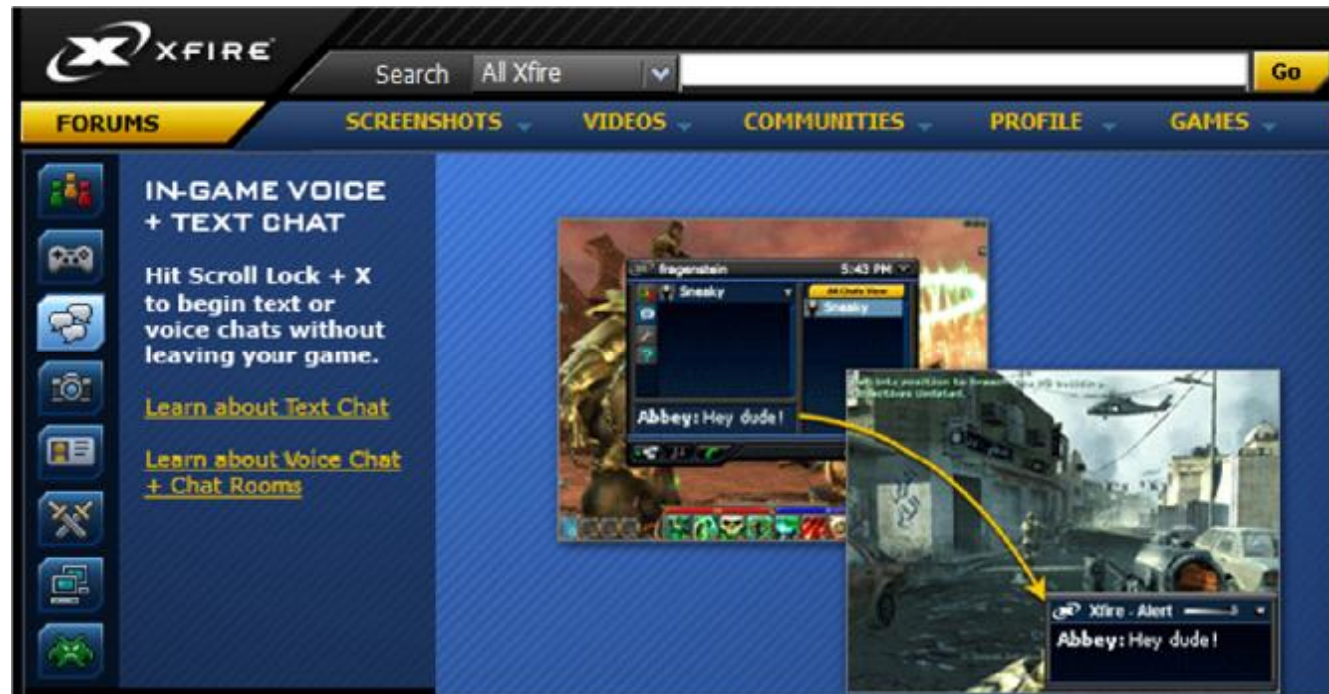
- OMGN players spend collectively in-game over 100 years hourly
- A significant fraction of players played over 10,000h
- OMGN members are routinely engaged in the creation and consumption of game-related media
- OMGN members are “social creatures”, having on average over 60 friends
- More in-depth analysis and comparison with the other form of social network and single-game social network
Such as Valve’s Steam or PS3’s network or Facebook
- Thanks for MMVE reviewers’ comments

Thank you for your attention!

Any comments, questions, suggestion?



In-game chat



Game stat & guilds

AUTO-GENERATED PROFILES

Show off your gaming hours, rig, and other auto-generated stats on your profile page, or embed a summary miniprofile anywhere on the web.

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DETAILS

Username: fragenstein
 Nickname: --[Dr.Fragenstein]--
 Location: United States
 Age: 108
 Gender: Male
 Gaming Style: Tank Rush

Status: Online
 Member Since: 2003-12-08
 488 Friends

Game	Past 7 Days	Total
Dirty Dancing: The Video Game	14 hours	1,792 hours
StarCraft: Brood War	-	79 hours
Guild Wars	-	60 hours
Yu-Gi-Oh! Online: Duel Evolution	-	57 hours
Warcraft III - The Frozen Throne	-	46 hours

[Show Entire Gaming History](#)

Overall Hours	14 hours	2,295 hours
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CLANS + GUILDS

Facilitate clan or guild events with alerts, discussion forums, and more.

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Xfire Guild
 Browse Clans & Guilds

News
Forum
Members
Event Calendar
Activity Log
Leave Guild

GAMEPLAY HOURS

#	Game	Past 7 Days	Total
1	Guild Wars	18 hours	2684 hours
2	World of Warcraft	7 hours	357 hours
3	Battlefield 2	-	654 hours
4	Xevil	-	246 hours

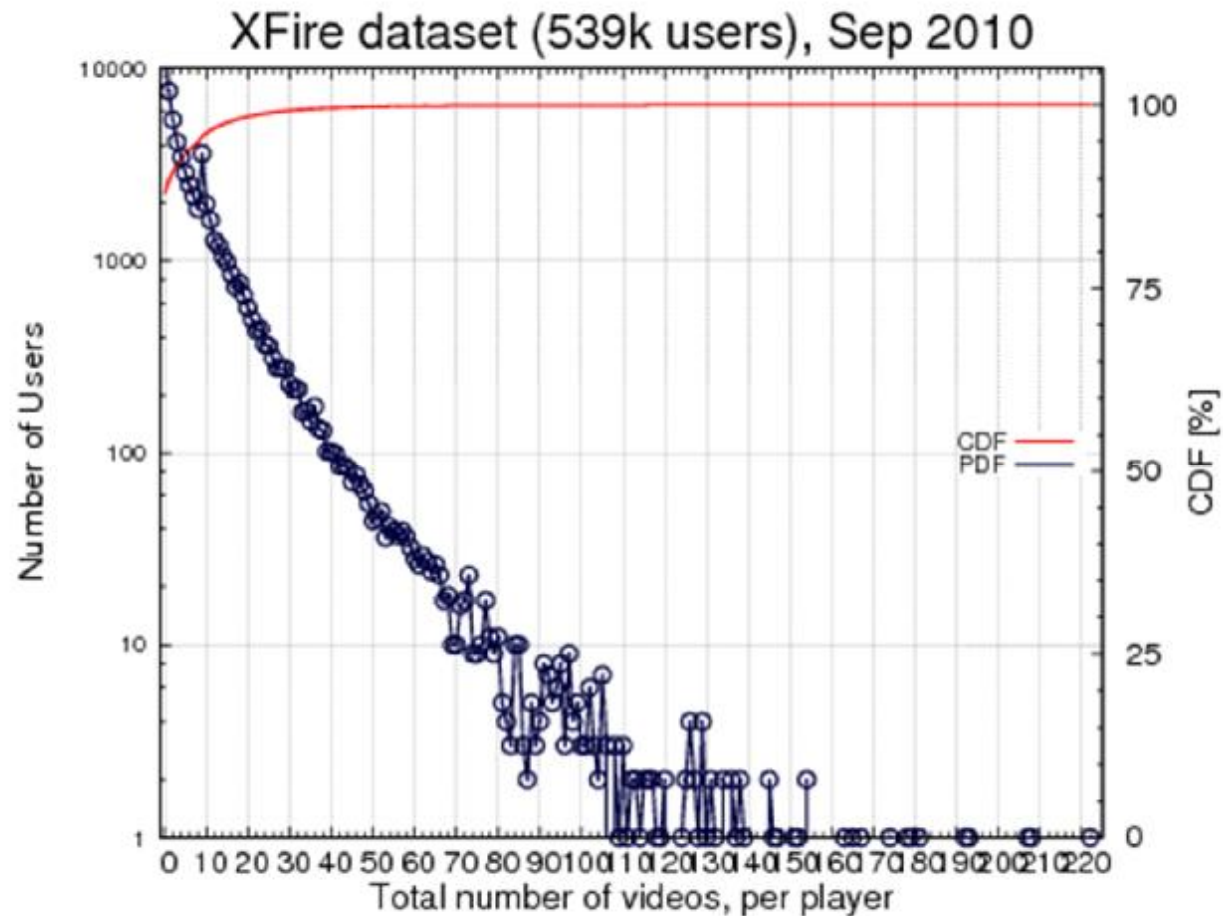
Overall Hours 25 hours 3941 hours

GUILD NEWS

Welcome!
 I would like to take the opportunity to welcome our newest members to the clan! Enjoy your stay & recruit your friends!

2008-02-20 10:34 AM MST
[View entry](#) - views: 389
[View More News](#)

Number of Produced Videos



Size of Communities

