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Social Interactions Experienced in the Massively Multiplayer Online Game Environment: Implications in the Design of Online Learning Courses

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Introduction

1. Research and use of educational game

- “Digital games for education” has been an emerging theme for decades and has been studied in the varieties of fields (Mitchell & Savill-Smith, 2004; Leemkuil et al, 2000)
- How we address to the ‘game generation’ is being a major concern by instructors (Prensky, 2001; Carstens & Beck, 2005)

Introduction (cont.)

2. Massively Multiplayer Online Game = MMOG

- Millions of players in the virtual world (IGDA, 2004)
- Virtual world economy is growing very fast (Castronova, 2002)
- People create learning community and mutually learn (Steinkuehler, 2004)
- Use for virtual classroom (Terdiman, 2004)
- Need to understand what is happening and how can we use them for education & training (Bonk & Dennen, 2005)



World of Warcraft



Second Life
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Research Purpose

- Describe the social interactions and experiences among game players in the non-combat Massively Multiplayer Online Game (MMOG) environment for implementation for online learning courses.
- Research Questions:
 - What are the elements creating social interactions which enhance players' motivations to play the game?
 - What are the players' experiences which promote their engagement in the game play?

Research Method

- **Ethnography approach** (Rossman & Rallis, 2003) and **qualitative data analysis** (Coffey and Atkinson, 1996)
 - Participatory observations on game players' behavior (February-April, 2005)
 - Formal and informal interviews with game players (6 face-to-face interview, 1 online chat interview)
 - Document analysis of reflective journals, written by the game players (Chat logs and online BBS logs)

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Research Field: A Tale in the Desert

- Non-combat type MMOG simulating ancient Egyptian world
- Game objective: Building the ideal civilization by perfecting the 'Seven Disciplines of Man' (Leadership, Art, Body, Thought, Architecture, Conflict, Worship)
- Paid subscribers: 1500 people (as of March 2005)



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Tasks in the game

- Seven universities assign players several tests to accomplish
 - Examples:
 - Initiation into leadership: collect approval signatures from 20 players
 - the human body: find 35 different herbs or trees and get back at the school in 30 minutes
 - Initiations into art: build a sculpture and collect 20 "interesting" votes of appreciation
 - Test of the Megalopolis: build a megalopolis with 49 people
 - Test of the Acrobat: Master 28 moves by teaching each other
 - Test of host: planning and hosting in-game event and get good reputation by other player

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In-game activities: Fireworks contest



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In-game activities: gem-cutting contest



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In-game activities: festival



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In-game activities: art creation



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Results

1. Game systems – the engine for social interaction
2. Guild – the place of mentorship
3. Practical use of the communication tools
4. Barrier created by the social interaction

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Results (cont.)

1. Game systems – the engine for social interaction
 - Non-linear, open-ended environment
 - Players can select tasks and start from anywhere
 - Cooperative tasks
 - Some tasks can not be done alone, need to cooperate with other people
 - User-participated operation
 - Wiki is administrated by player community
 - In-game events are hosted by players
 - Players can request new game rule to game designer

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Results (cont.)

2. Guild – the place of mentorship
 - Apprenticeship style support to the novice players by experienced players
 - Cooperation and sharing resources in the guild to develop the community

A: How I can travel to other area?
B: ok, there are chariot stops, which are also shown on your map. They go to different regions. You can find what goes where on wiki
B: eventually you can get anywhere :) [smiley face]...
A: Cool, now I can see pyro
B: :)
(Data from the online-chat log, 03/27/2005)

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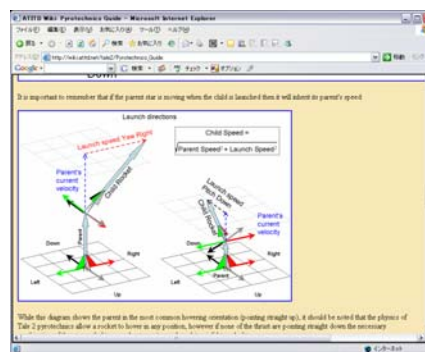
Results (cont.)

3. Practical use of the communication tools

- Wiki, BBS, online chat are used tactfully to share information with others
- Synchronous communication using chat is largely used for collaboration
- Knowledge database is created using wiki
- Performance support tools are developed by players

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Tools



Wiki – Pyrotecheniques



Herb data base

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Results (cont.)

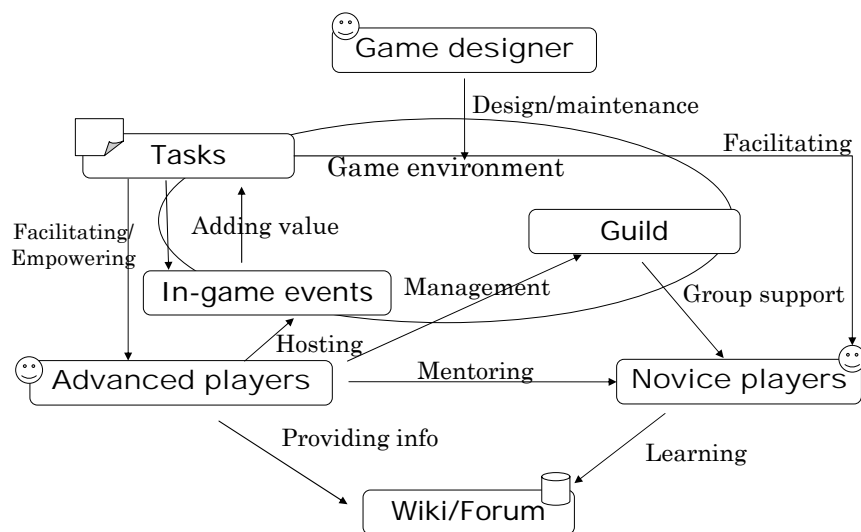
4. Barrier created by the social interaction

- Existence of others do not always help players to participate
- “Icebreaking” activity is necessary in the virtual world as well.

... in the real world, if I am in the event, there is one or two persons I know, then I am fine. But **when there are no people I know, then I become uncomfortable**, and I will find a reason to leave ... **my relationship with mentor was uncomfortable because I don't know who the mentor was.**
(Data from the interview log 04/11/2005)

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Relationship in the game world



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“e-learning world” vs. “MMOG world”

	e-learning	MMOG
Learning Environment	Linear, learners follow the same learning process	Non-linear, learners can choose the tasks based on their interests and levels
Design of learning environment	Totally controlled by the provider, learners do not participate in design	Learners actively provide feedback and can be in the part of the design process
Ways of learning	Limited, controlled by the provider	Flexible, learners can be creative to invent a new style
Knowledge provider	Always by the provider	Players take important roles by sharing what they find
Community management	Mainly by the provider (instructor, teaching assistant)	“Elders” and expert players in the community (Provider just set up the system)

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Conclusion

In the MMOG world,

- Autonomous learning community where the players mutually learn without intervention of the provider
- Learning is not the purpose, but is occurred in the activity to accomplish the tasks
- “Arrangement” is the role of game designer - no need to teach, or even facilitate

Future research:

- Instructional design using commercial MMOGs
 - Apply the features of MMOG to online course design
- Pursuing “Massively Multiplayer Online Learning”

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Thank You

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