

INSTRUCTIONS: Email completed form and all revised and/or new study documents to irb@vt.edu (PDFs preferred).

Note: The project's IRB-approved Research Protocol (previously entitled Initial Review Application) must be kept current and followed throughout the life of the project. It is advised that it be reviewed prior to the submission of an amendment request to ensure all changes are reflected. All study documents are subject to audit.

1. IRB NUMBER:

CF 08-170 IR

2. PROJECT TITLE:

High-Resolution, Highly-Multiplayer Gaming

3. PRINCIPAL INVESTIGATOR

Name:
Chris North

Email address:
north@cs.vt.edu

4. REQUESTING AMENDMENT TO:

- Research Protocol (or Initial Review Application)
- Consent form
- Recruitment materials
- Data document (e.g., survey instrument, interview questions)
- Research personnel
- Other

5. DESCRIBE THE AMENDMENT BEING REQUESTED:

Note: with each requested change, provide a detailed description of where within the study documents (e.g., Research Protocol, survey instrument, etc.) the changes are reflected (e.g., page number, question #, etc.)

As part of user trials, video was recorded. This video was recorded for the purpose of analysis. However, I (David Machaj, dmachaj@vt.edu) would like to take snapshots from the video for use in my Masters thesis to demonstrate varying phenomenon. The snapshots will be anonymized by blurring the faces and any identifying features.

6. HAVE THESE REQUESTED CHANGES BEEN INITIATED?

- No
- Yes, why were these changes initiated prior to being approved (see bottom of page)?

7. HOW WILL THE PROPOSED AMENDMENT AFFECT STUDY PARTICIPANTS?

It should have no effect on participants. The trials have all been concluded, and the video has already been taken. The snapshots will be anonymized, thereby protecting their privacy.

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08-170

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High-Resolution, Highly Multiplayer Gaming

3. PRINCIPAL INVESTIGATOR

Name:
Christopher L. North

Email address:
north@cs.vt.edu

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- Research Protocol (or Initial Review Application)
- Consent form
- Recruitment materials
- Data document (e.g., survey instrument, interview questions)
- Research personnel
- Other

5. DESCRIBE THE AMENDMENT BEING REQUESTED:

Note: with each requested change, provide a detailed description of where within the study documents (e.g., Research Protocol, survey instrument, etc.) the changes are reflected (e.g., page number, question #, etc.)

- 1) Background Questionnaire: Added a question regarding the participants' familiarity with their fellow participants. This is important since the research is studying gameplay enjoyment and interactions and the participants' familiarity with other players may be significant.**
- 2) Post Experiment Survey: Completely new form. Created to judge participants' preference between the two game sizes.**
- 3) Post Game Survey: Added questions measuring the participants' preference and enjoyment of the different game variants (team and free-for-all). Added a question concerning the familiarity of the participant with others in the study.**
- 4) Recruiting Materials: Completely new document. A flyer that will be emailed around and possibly posted in approved locations. Complies with all the requirements listed on the IRB web site.**

6. HAVE THESE REQUESTED CHANGES BEEN INITIATED?

- No
- Yes, why were these changes initiated prior to being approved (see bottom of page)?

Federal regulations require IRB approval prior to changing a research procedure or deviating from IRB-approved documents unless it is in the best interest of or for the safety of study participants.

7. HOW WILL THE PROPOSED AMENDMENT AFFECT STUDY PARTICIPANTS?

The amendment will have a minimal effect on study participants. No one has yet used these documents so no existing participants exist. The background questionnaire will ask slightly more information, notably how well the participant knows the other participants in a particular trial. The two surveys have just been updated to reflect more refined independent variables and their measurement. The recruiting materials have been created from scratch in compliance with IRB regulations. No recruitment has yet taken place. No promises of benefits have been made besides any enjoyment the participants may draw from gameplay.



Office of Research Compliance
Institutional Review Board
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540/231-4991 Fax 540/231-0959
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www.irb.vt.edu

FWA00000572(expires 1/20/2010)
IRB # is IRB00000667

DATE: October 20, 2008

MEMORANDUM

TO: Christopher L. North
David Machaj

FROM: David M. Moore 

Approval date: 3/26/2008
Continuing Review Due Date:3/11/2009
Expiration Date: 3/25/2009

SUBJECT: **IRB Amendment 1 Approval:** "High-Resolution, Highly Multiplayer Gaming" , IRB # 08-170

This memo is regarding the above referenced protocol which was previously granted approval by the IRB on March 26, 2008. You subsequently requested permission to amend your IRB application. Since the requested amendment is nonsubstantive in nature, I, as Chair of the Virginia Tech Institutional Review Board, have granted approval for requested protocol amendment, effective as of October 20, 2008. The anniversary date will remain the same as the original approval date.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.
3. Report promptly to the IRB of the study's closing (i.e., data collecting and data analysis complete at Virginia Tech). If the study is to continue past the expiration date (listed above), investigators must submit a request for continuing review prior to the continuing review due date (listed above). It is the researcher's responsibility to obtain re-approval from the IRB before the study's expiration date.
4. If re-approval is not obtained (unless the study has been reported to the IRB as closed) prior to the expiration date, all activities involving human subjects and data analysis must cease immediately, except where necessary to eliminate apparent immediate hazards to the subjects.

cc: File



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FWA00000572(expires 1/20/2010)
IRB # is IRB00000667

DATE: February 27, 2009

MEMORANDUM

TO: Christopher L. North
David Machaj

FROM: David M. Moore 

Approval date: 3/26/2009
Continuing Review Due Date:3/11/2010
Expiration Date: 3/25/2010

SUBJECT: **IRB Expedited Continuation 1:** "High-Resolution, Highly Multiplayer Gaming" , IRB # 08-170

This memo is regarding the above referenced protocol which was previously granted expedited approval by the IRB. The proposed research is eligible for expedited review according to the specifications authorized by 45 CFR 46.110 and 21 CFR 56.110. Pursuant to your request, as Chair of the Virginia Tech Institutional Review Board, I have granted approval for extension of the study for a period of 12 months, effective as of March 26, 2009.

Approval of your research by the IRB provides the appropriate review as required by federal and state laws regarding human subject research. As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.
3. Report promptly to the IRB of the study's closing (i.e., data collecting and data analysis complete at Virginia Tech). If the study is to continue past the expiration date (listed above), investigators must submit a request for continuing review prior to the continuing review due date (listed above). It is the researcher's responsibility to obtain re-approval from the IRB before the study's expiration date.
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FWA00000572(expires 1/20/2010)
IRB # is IRB00000667

DATE: April 16, 2009

MEMORANDUM

TO: Christopher L. North
David Machaj

FROM: David M. Moore 

Approval date: 3/26/2009
Continuing Review Due Date:3/11/2010
Expiration Date: 3/25/2010

SUBJECT: **IRB Amendment 1 Approval:** "High-Resolution, Highly Multiplayer Gaming" , IRB # 08-170

This memo is regarding the above referenced protocol which was previously granted approval by the IRB on March 26, 2009. You subsequently requested permission to amend your IRB application. Since the requested amendment is nonsubstantive in nature, I, as Chair of the Virginia Tech Institutional Review Board, have granted approval for requested protocol amendment, effective as of April 15, 2009. The anniversary date will remain the same as the original approval date.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.
3. Report promptly to the IRB of the study's closing (i.e., data collecting and data analysis complete at Virginia Tech). If the study is to continue past the expiration date (listed above), investigators must submit a request for continuing review prior to the continuing review due date (listed above). It is the researcher's responsibility to obtain re-approval from the IRB before the study's expiration date.
4. If re-approval is not obtained (unless the study has been reported to the IRB as closed) prior to the expiration date, all activities involving human subjects and data analysis must cease immediately, except where necessary to eliminate apparent immediate hazards to the subjects.

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FWA00000572(expires 1/20/2010)
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DATE: March 26, 2008

MEMORANDUM

TO: Christopher L. North
 David Machaj

Approval date: 3/26/2008
 Continuing Review Due Date:3/11/2009
 Expiration Date: 3/25/2009

FROM: David M. Moore 

SUBJECT: **IRB Expedited Approval:** "High-Resolution, Highly Multiplayer Gaming", IRB # 08-170

This memo is regarding the above-mentioned protocol. The proposed research is eligible for expedited review according to the specifications authorized by 45 CFR 46.110 and 21 CFR 56.110. As Chair of the Virginia Tech Institutional Review Board, I have granted approval to the study for a period of 12 months, effective March 26, 2008.

As an investigator of human subjects, your responsibilities include the following:

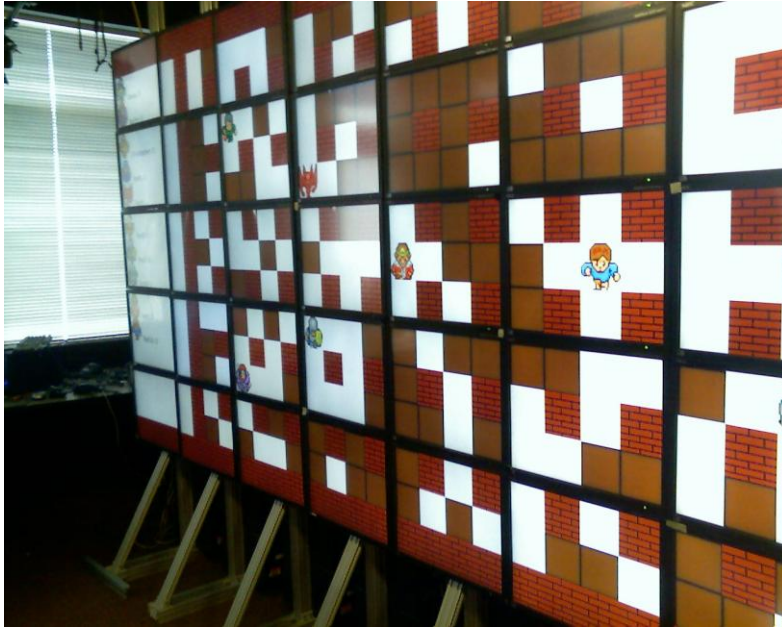
1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
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3. Report promptly to the IRB of the study's closing (i.e., data collecting and data analysis complete at Virginia Tech). If the study is to continue past the expiration date (listed above), investigators must submit a request for continuing review prior to the continuing review due date (listed above). It is the researcher's responsibility to obtain re-approval from the IRB before the study's expiration date.
4. If re-approval is not obtained (unless the study has been reported to the IRB as closed) prior to the expiration date, all activities involving human subjects and data analysis must cease immediately, except where necessary to eliminate apparent immediate hazards to the subjects.

Important:

If you are conducting **federally funded non-exempt research**, this approval letter must state that the IRB has compared the OSP grant application and IRB application and found the documents to be consistent. Otherwise, this approval letter is invalid for OSP to release funds. Visit our website at <http://www.irb.vt.edu/pages/newstudy.htm#OSP> for further information.

cc: File

Call for Participants: High-resolution, Highly-multiplayer gaming



The game loaded up on the GigaPixel Display, ready to be played

What:

- Research on highly multiplayer gaming on the GigaPixel Display.
- Up to 12 players will play at the same time, using Wii Remotes for input.
- The purpose of this study is to measure enjoyment and interactions within a new type of gaming.
- No payment or other benefits will be offered besides any enjoyment that may be drawn from the game itself.

Who:

- People who are interested in, and experienced with video games. Preferably in groups of four.
- People who are willing to play a game on the GigaPixel Display for two sessions, each lasting approximately 45 minutes.

Contact Information:

David Machaj

dmachaj@vt.edu

Masters Student, Virginia Tech

Informed Consent for Participant of Investigative Project

Virginia Polytechnic Institute and State University

Title of Project: High-Resolution, Highly Multiplayer Gaming

Principal Investigator: Dr. Christopher L. North

I. THE PURPOSE OF THIS RESEARCH/PROJECT

You are invited to participate in a study of gaming involving a large, high-resolution display. This research studies the feasibility, worthiness, and enjoyment of gaming on a large high-resolution screen. This study involves experimentation for the purpose of evaluating and improving gaming on large high-resolution displays.

II. PROCEDURES

You will be asked to play a game for a specified period of time. The gameplay involves navigating a character throughout a two-dimensional world and planting bombs to destroy other players. Your role in this is simply to play the game. You are helping to evaluate this particular game. All information that you help us attain will remain anonymous. The scores in the game will be stored and video records will be recorded. You may be asked questions during and after the evaluation, in order to clarify our understanding.

You may also be asked to fill out a questionnaire relating to your background with computer games.

The session will last less than an hour and a half. The game is typically played while standing, but you may ask for a seat at any time. You may also terminate your participation at any time, for any reason.

You will be given full instructions before play begins. If anything is unclear, be sure to ask us questions.

III. RISKS

The proposed experiment is a straightforward game, involving a large high-resolution display and a Nintendo Wii Remote for input. Participation involves standing in front of the display, along with several other people, and playing a game. The physical components of this task are not stressful. All light and sound intensities are well within normal ranges. There are no known mental risks. The risks associated with participation in this study are minimal.

IV. BENEFITS OF THIS PROJECT

Your participation in this study will provide information that may be used to judge the feasibility and worthiness of gaming on large high-resolution displays. No guarantee of benefits has been made to encourage you to participate.

You are requested to refrain from discussing the evaluation with other people who might be in the candidate pool from which other participants might be drawn.

V. EXTENT OF ANONYMITY AND CONFIDENTIALITY

The results of this study will be kept strictly confidential. Your written consent is required for the researchers to release any data identified with you as an individual to anyone other than personnel working on the project. The information you provide will have your name removed and only a subject number will identify you during analyses and any written reports of the research.

The experiment may be videotaped. If it is taped, the tapes will be stored securely, viewed by only the experimenters (Christopher L. North, David A. Machaj), and will be erased after 6 months. If the experimenters wish to use a portion of your videotape for any other purpose, they will get your written permission before using it.

VI. COMPENSATION

Your participation is voluntary and unpaid.

VII. FREEDOM TO WITHDRAW

You are free to withdraw from this study at any time for any reason.

VIII. APPROVAL OF RESEARCH

This research has been approved, as required, by the Institutional Review Board for projects involving human subjects at Virginia Polytechnic Institute and State University, and by the Department of Computer Science.

IX. SUBJECT'S RESPONSIBILITIES AND PERMISSION

I voluntarily agree to participate in this study, and I know of no reason I cannot participate. I have read and understand the informed consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this project. If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project

Signature

Date

Name (please print)

Contact: phone or address or

email address (OPTIONAL)

Should I have any questions about this research or its conduct, I may contact:

Investigator: Dr. Christopher L. North Phone (540)231-2458
Professor, Computer Science Department (231-6931)
email: north@vt.edu

Review Board: David M. Moore Phone (540) 231-4991
Office 2000 Kraft Drive, Suite 2000 (0497),

cc: the participant, Dr. North

Informed Consent for Participant of Investigative Project

Virginia Polytechnic Institute and State University

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Principal Investigator: Dr. Christopher L. North

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Signature

Date

Name (please print)

Contact: phone or address or

email address (OPTIONAL)

Should I have any questions about this research or its conduct, I may contact:

Investigator: Dr. Christopher L. North Phone (540)231-2458
Professor, Computer Science Department (231-6931)
email: north@vt.edu

Review Board: David M. Moore Phone (540) 231-4991
Office 2000 Kraft Drive, Suite 2000 (0497),

cc: the participant, Dr. North

INSTRUCTIONS: Email completed form and the study's current consent form (if applicable) to irb@vt.edu (PDFs preferred). Unless the protocol was originally approved as Expedited, also email a copy of the current (i.e., incorporating all amendments) Research Protocol / Initial Review Application.

1. IRB NUMBER:

08-170

2. PROJECT TITLE:

High-resolution, Highly multiplayer gaming

3. PRINCIPAL INVESTIGATOR

Name:

Dr. Chris North

Email address:

north@vt.edu

4. PROJECT STATUS:

- Enrollment is open
- All subjects have completed research interventions and the research remains active only for long-term follow-up of subjects
- Remaining research activities are limited to data analysis
- No subjects have been enrolled
- Other, please explain:

5. PROVIDE THE NUMBER AND DEMOGRAPHICS OF ENROLLED PARTICIPANTS:

(so far) 24 participants. All are undergraduates, graduate students, and the occasional professor

- Unknown
- Not applicable

6. HOW MANY PARTICIPANTS HAVE DISCONTINUED PARTICIPATION AND WHY?

- None
- Not applicable

7. BRIEFLY SUMMARIZE THE STUDY PROGRESS, PRELIMINARY FINDINGS, AND ANY RECENT LITERATURE THAT MAY BE RELEVANT TO THE RESEARCH, IF ANY:

24 of the expected 32 participants have finished. The remainder should be done within the next week, or at the most two weeks.

- None

8. DESCRIBE ANY ANTICIPATED OR UNFORESEEN COMPLICATIONS OR EVENTS:

- None

9. DESCRIBE ANY COMPLAINTS RECEIVED AND HOW THEY WERE HANDLED:

- None

If the project expires prior to receipt of an IRB continuing review approval letter, all activities involving human subjects (e.g., recruitment, consenting, study procedures), and further data collection and analysis must cease.



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Certificate of Completion

This certifies that

David Machaj

Has completed

Training in Human Subjects Protection

On the following topics:

Historical Basis for Regulating Human Subjects Research

The Belmont Report

Federal and Virginia Tech Regulatory Entities, Policies and Procedures

on

March 12, 2008



David Moore, IRB Chair



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