



turning knowledge into practice

Virtual Survey Research: Collecting Data in Second Life

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RTI International

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What is Second Life

- Second Life® is a 3-D virtual world created by its Residents
 - emphasizing socializing, world-building and an in-world virtual economy that depends on the sale and purchase of user-created content.
 - users design avatars to represent themselves
- Some define it as a Massively Multiplayer Online Social Game (MMOSG) or a Massively Multiplayer Online Game (MMOG)
 - But environment is not specifically designed as a game

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- Accessible at SecondLife.com
- SL Software client installed on the Local machine
- SL servers delivers content via internet
- SL servers handle data management, avatar telemetry, communications channels
- Client software provides tool sets to develop and explore the 3D virtual worlds
- Virtual Worlds and SL in particular are an open canvas – Users self govern within boundaries defined by the developer (in this case Linden Labs)

IBM Training Facility in SL



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Here are some pictures from within Second Life – to give you an idea of what the virtual world looks like.

It looks like a computer game.

CDC Island in SL



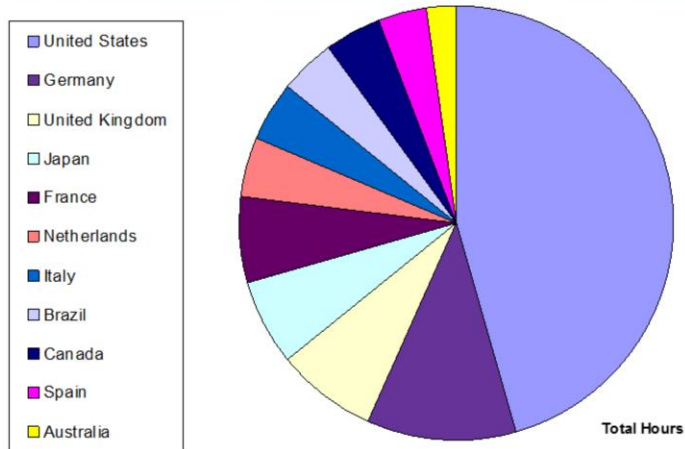
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Another example.

Who is using Second Life?



Source: Linden Labs Website - Key Metrics 11/2008

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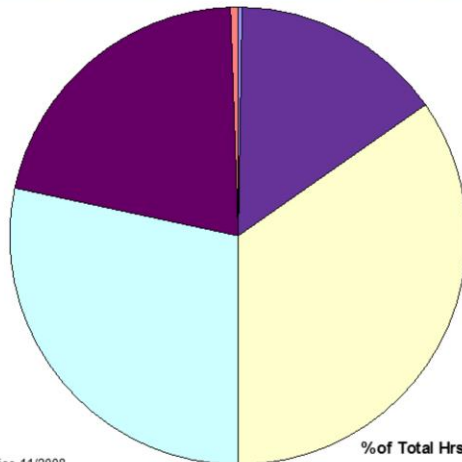
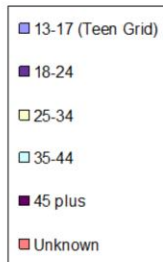
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- Largest percentage of users are from the US – but still less than 50%
- Most users are in U.S., Europe, and Japan.
- A significant international mix, predominantly western.

Who is using Second Life?



Source: Linden Labs Website - Key Metrics 11/2008

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-There is a nice distribution of age demographics to tap into when thinking about future surveys. This is not as typical in other “Game” technologies.

-It’s not as young a population as you might suspect. The largest age groups are 25-34 year olds and 35-44 year olds, equally represented.

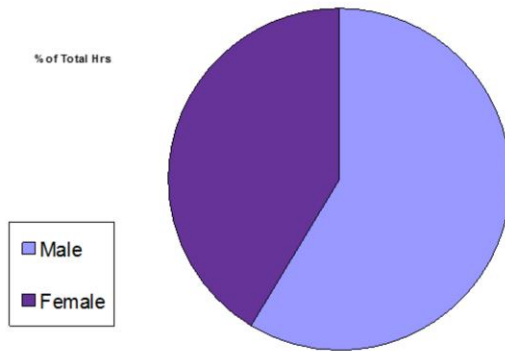
-The SL grid is 18 and above

-There is a SL Teen Grid to accommodate 13 - 17 year olds. Adults are not permitted to join.

-There is a voluntary age verification process that can be utilized and some parcels or sites use this as a discriminator criteria for entrance.

-Some other discriminators can be the “age” of your account. (e.g. No newbies)

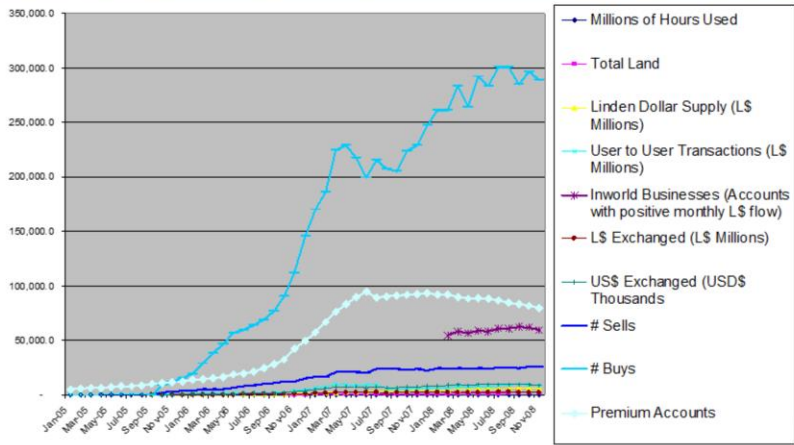
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Source: Linden Labs Website - Key Metrics 11/2008

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Linden Labs Growth Curve



Source: Linden Labs Website - Key Metrics 11/2008

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-The graph is not intended to be used to evaluate each dimension in the graph, but rather it is giving indication that the technology is experiencing a healthy growth in it use.

-The graph depicts Second Life economic activity from January 2005 through November 2008, including total number of purchases, sales, Linden dollars (the SL currency).

-Linden Labs is the developer of Second Life. Their headquarters is out of San Francisco

-The SL currency exchanges at a rate of about 260 Linden dollars for every 1 U.S. dollar.

RTI in Second Life: Goals

- Explore the Second Life medium
- Consider application as a virtual survey environment
- Build facility for conducting research in Second Life
- Collect data “in-world”
- Consider feasibility and utility of panel of Second Life avatars

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-The use of avatars may offer enhancements to web-based self-administered surveys. Consumer research has shown that avatars add a positive, personalized experience to online purchases. Avatars may offer survey respondents that same personalized experience thereby increasing survey response rates and improving data quality.

-We developed the prototype facility in Summer of 08.

-We are currently conducting pilot studies in Second Life to evaluate the viability as a survey mode.

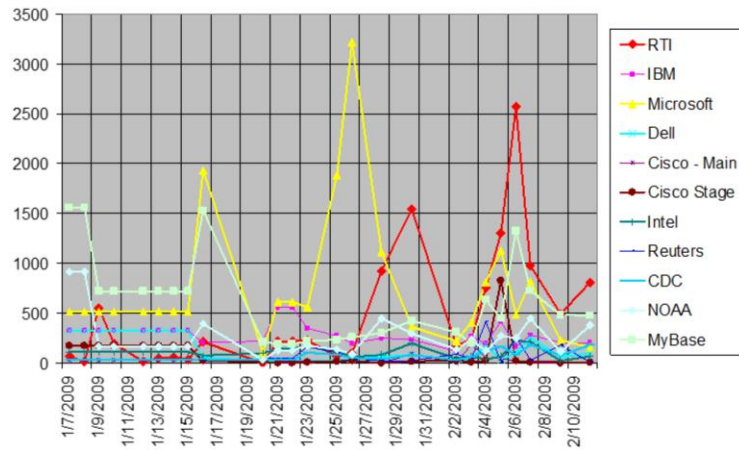
-A long term consideration is the potential of a survey panel of SL avatars.

RTI SL Facility



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Daily Parcel Traffic



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- The traffic to the RTI site was heavily influenced by running a survey that offered an incentive to participants
- Other sites are being monitored to have some level of baseline
- This data is an informal collection and was started as part of the first steps to leveraging SL as an RTI marketing tool

Demo



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Two avatars will be conducting the demonstration in world. Please meet Frances Meriman and Sadie Winterfeld.

- Orientation island
- RTI Site

Preliminary Research in Second Life

- New communication technology
- New method of self-presentation
- How would data collection work?
- Who would “show up”?
- Who are respondents?
 - Avatars/residents?
 - Users?

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Survey Work in Second Life

Study 1: Evaluation of Recruitment Methods

- Automated survey conducted at survey kiosk
- ~ 400 respondents
- Incentive of \$250 Linden, ~ \$1 each
- Tested effectiveness of recruitment strategies:
 - Second Life classifieds
 - Second Life web forums post
 - Virtual shopping mall advertisement
 - Ad in Second Life Herald blog

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Study 1 Preliminary Results

- \$1 goes a long way in Second Life!
- All recruitment methods except the ad at the mall seemed to result in attracting respondents, classifieds especially
- 40% of Rs are 24 or younger and 75% are 34 or younger
- 75% of Rs live in the U.S.
- 43% of Rs report living in a cell phone only household

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Survey Work in Second Life

Pilot Test of Interviewing with Avatars

- Use of standard avatar-interviewer
- Will complete 60 interviews
- Interested in logistics of interviewing with avatars
- Manipulating size of avatar-interviewer to assess the impact on reports of real life weight and physical activity level
- 40 interviews completed to date

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We are conducting interviews between avatars.

One thrust of virtual reality research has found that there is a relationship between what your avatar looks like and does in virtual reality and what you do in real life. Avatar behavior can affect real-life behavior!

Some preliminary lab research conducted at Stanford has shown that people who watch their avatars work out, say on a treadmill or other exercise equipment, in virtual reality, are more likely to exercise in real life in the week or two after viewing. Our pilot interviewing study is looking at this issue.

Study 2 Preliminary Results

- Respondents who are physically active in Second Life are also active in real life.
- Thinner avatars are associated with lower real-life BMI.
- Respondents interviewed by the thin avatar were much more likely to say their own avatar shape was thin.
- Average BMI was higher, by 3 points, for those reporting to the heavy interviewer.

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Next Steps

- Study results are preliminary
- Conduct further analyses and significance testing
- Tool for laboratory testing of cognitive or usability properties of surveys
- Tool for recruiting participants to real life lab tests
- Conduct representative sample of SL population
- Consider SL panel
- Operational applications of SL

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“You think Second Lifers want to be your next generation of lab rats?”