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#### Main research objectives

- Defining digital identity parameters by comparing in-game and out-game activities.
- Mapping gamers' in-game and out-game (discussion forum) behaviors through the use of different game-related (or not) indicators.
- Identifying specific social behaviors from this community.

- Big Story Little Heroes (Vandal Games, 2012)
- Capture the flag on Facebook (multiplayer real time game)
- Study period: 2013-06-10 to 2014-05-22 (data exportation date)





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- Capture the flag on Facebook (real time game)
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VCIACIA         VCIACIA         VCIACIA         Story Little Heroes Discussions + Guides	es (BSLH) Fo	orums		
<b>WOWTOPIC</b> Search this forum Search				54 topics • Page 1 of 3 • 1 2 3
TOPICS		REPLIES	VIEWS	LAST POST
Kirby's Professional guide to Big story, Little heroes. by KirbyEspada > Wed Mar 12, 2014 2:52 am	<mark>0</mark> 12	11	1331	by IMA KILL YOU D Wed Apr 16, 2014 4:00 pm
Reference, Guide for New Player and Wiki! by Elpat » Mon Oct 14, 2013 8:04 pm	<b>Q</b> 1 2 3 4 5	46	4147	by Junk 🖸 Mon Dec 09, 2013 3:25 am
Released Guide for the BSLH Public by Cookie Magnet by Cookie Magnet » Wed Jun 12, 2013 6:21 am	<mark>Q</mark> 1 2 3	28	3188	by Gakashi 🖬 Sat Nov 30, 2013 7:24 pm
Unique Item Hourglass and why it's OP on ChiefScout by Toast > Sun Dec 22, 2013 12:23 pm	<b>Q</b> 12	12	1590	by Waltergpoet D Wed Dec 24, 2014 7:26 pm



#### Presentation of some community traits

- Sample of 549 739 gamers

gender	count(gender)	percentage_count(gender)
male	480460	87,4
female	68786	12,5
empty	493	,1
	549739	100,0

#### Presentation of some community traits

- Sample of 549 739 gamers

country	count(country)	percentage_count(country)
Brésil	66792,0	12,1
Philippines	60503,0	11,0
Turquie	39221,0	7,1
Thaïlande	33400,0	6,1
États-unis	29755,0	5,4
Empty	23927,0	4,4
Indonésie	18285,0	3,3
Argentine	17468,0	3,2
Pologne	16907,0	3,1
Mexique	16153,0	2,9
Colombie	13894,0	2,5
France	12716,0	2,3
Roumanie	12465,0	2,3
Malaisie	10860,0	2,0
Portugal	9268,0	1,7
Allemagne	9244,0	1,7
Venezuela	9125,0	1,7
Pérou	8901,0	1,6
Viêt Nam	8500,0	1,5
Chili	8438,0	1,5
Italie	7991,0	1,5
Égypte	6576,0	1,2
Espagne	6218,0	1,1
Serbie	5617,0	1,0
Canada	5599,0	1,0

#### Presentation of some community traits

- Sample of 549 739 gamers

lvi	count(IvI)	percentage_count(IvI)
1,0	303930,0	55,3
2,0	95365,0	17,3
3,0	44163,0	8,0
4,0	33195,0	6,0
5,0	22805,0	4,1
6,0	22377,0	4,1
7,0	14504,0	2,6
8,0	7156,0	1,3
9,0	2408,0	,4
10,0	1143,0	,2
11,0	713,0	,1
12,0	545,0	,1
13,0	359,0	,1
14,0	48,0	,0
15,0	188,0	,0
16,0	156,0	,0
17,0	94,0	,0
18,0	86,0	,0
19,0	85,0	,0
20,0	74,0	,0
21,0	74,0	,0
22,0	84,0	,0
23,0	41,0	,0
24,0	40,0	,0
25,0	31,0	,0
26,0	24,0	,0
27,0	16,0	,0
28,0	17,0	,0
29,0	6,0	,0
30,0	12,0	,0

### Methodology

- Mixed approach: quantitative and qualitative

### Available data

- Qualitative data:
  - Posts from the game's official discussion forum
  - Posts from the game's official Facebook page
  - Interviews with the game designers
- Quantitative data:
  - Google analytics (connection data)
  - Facebook data:
    - Analytics (data aggregation)
    - Gender and country (id)
  - Data collected by Vandal Games
    - Connection data, games won/lost, levels, etc.

#### Tools used for quantitative data

- Google and Facebook analytics
- PhpMyAdmin => SQL format
- Rapid Miner : processing of extracted data
- Excel: organizing results (charts)

### Tools used for quantitative data: Rapid Miner

- 1) Operations (data transformation, process control, modeling, import/export)
- 2) Reorganization of the data
- 3) « Boxes » with operations (ex: read, remove duplicate, join (identical id), write data base => new table)



 Read data base "table player – distribution women and men"/ aggregate win-lose women and men / write excel

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H United Internation (114)					
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3	male	2457022	2970621				
2	female	248130	325749				
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gender	sum(wincount)	sum(losecount)	Wincount %	Losecount %
male	2457022	2970621	45,3	54,7
female	248130	325749	43,2	56,8
empty	3639	3018	54,7	45,3

#### Quantitative and qualitative data crossing

- Identification of meaningful differences in the quantitative data and explanation with the qualitative data
- Identification of meaningful occurrences in the qualitative data and verification of meaningful effects in the quantitative data

- 1) Identification of singular events (in the quantitative data and explication with the qualitative data)
- Measure gamers' level growth rate



## 1) Identification of singular events (in the quantitative data and explication with the qualitative data)



## 2) Identification of singular events (in the qualitative data and verification of the effects in the quantitative data)

- Vandal Games added turrets in the game on the 31st of January 2014. In order to measure their effects, we are analyzing the number of *countkill, countdeath*, and *countassist* that have occurred one week before and after the integration of the turrets.



## 2) Identification of singular events (in the qualitative data and verification of the effects in the quantitative data)

- From 23/01/14 to 30/01/14, 114 319 recorded connections

sum(countkill)	sum(countdeath)	sum(countassist)	count(win)
372319	416029	441979	114319

- From 31/01/14 to 07/02/14, 114 125 recorded connections

sum(countkill)	sum(countdeath)	sum(countassist)	count(win)
379930	422721	443764	114125

## 2) Identification of singular events (in the qualitative data and verification of the effects in the quantitative data)

- Day before turret integration (30/01/14), 17 546 recorded connections

sum(countkill)	sum(countdeath)	sum(countassist)	count(win)
56654,0	63396,0	65859,0	17546,0

### - Day of turret integration (31/01/14), 18 019 recorded connections

sum(countkill)	sum(countdeath)	sum(countassist)	count(win)
60525,0	66664,0	68085,0	18019,0

#### Data visualisation – Gamer distribution by level



#### Risks of quantitative methodology

- Big Data tools based on predictability, not explanation
- Results already informed by the tools
- Tools poorly understood and mastered
- Difficulty of questioning the data (usually too large!)
- Automation of the meaning generation circuit
- High truth value tied to the mathematization, computerization, and algorithmitization of data and results
- Ethical problems of data collection (surveillance questions)
- Place and role of the researcher

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