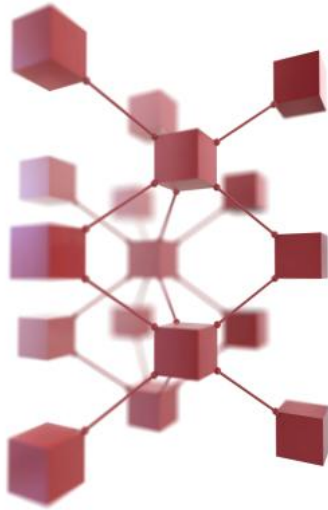


**A TECHAISLE WHITE PAPER**



## ***INTERACTIVE ENTERTAINMENT*** **ASSESSING THE GAMER-DEVELOPER GAP**

BIO-SENSORY STUDY EXPOSES CONSIDERABLE GAPS IN PLAYER  
ENGAGEMENT BETWEEN GAME DEVELOPERS AND CONSUMERS,  
AND BETWEEN GENDERS

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**techaisle**

5053 DOYLE RD, SUITE 105

SAN JOSE, CA 95129

408-914 2989

[WWW.TECHAISLE.COM](http://WWW.TECHAISLE.COM)

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### **Introduction**

A recent research study tested attendees at the Game Developers Conference in March 2009 in San Francisco, and also sampling of target consumers for a popular game.

### **Problem Statement**

Is a game developer's personality often reflected in the game? Data suggests so.

### **Capturing the Experiential Differential**

Game developers and target consumers differ significantly along four dimensions tracked by the research.

### **Gender Matters**

The study also reveals significant differences in approach and experience among males and females.

### **Conclusion**

Using certain market research techniques during design phase of a game could conceivably improve the chances of meeting target market's expectations.



# ASSESSING THE GAMER-DEVELOPER GAP

## BIO-SENSORY STUDY EXPOSES CONSIDERABLE GAPS IN PLAYER ENGAGEMENT BETWEEN GAME DEVELOPERS AND CONSUMERS, AND BETWEEN GENDERS

### INTRODUCTION

Games are insanely complex to develop. Non-gaming software typically provides an experience that an average user can comprehend and over time get used to and get more productive at using the software. What differentiates games from run-of-the-mill boring business applications is the sensory and emotional roller coaster that games take a user through. This sensory experience adds a dimension of tremendous difficulty for a game developer. They therefore push the boundaries and corresponding limits based on their preferences and what tickles their fancy. In other words, *a game developer's personality is often reflected in the game.*

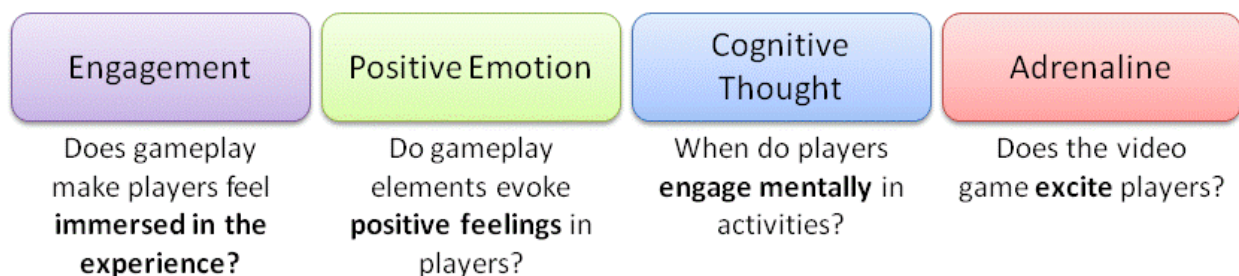
#### Video Game Marketer's Dilemma

Many times, this creates problems for marketers. What if the game intensely and unintentionally reflects the game developer's preferences that the target market cannot relate to it? Ultimately, game developers and game players are different beings. Great successes come when game developers can bridge that divide to deliver games which delight and entertain the target audience.

Traditional market research techniques can effectively capture requirements and measure usability for non-gaming software. But how does one capture the sensory experience delivered by games and check if the game is delivering against the intended target market.

#### New Technology that attempts to provide guidance

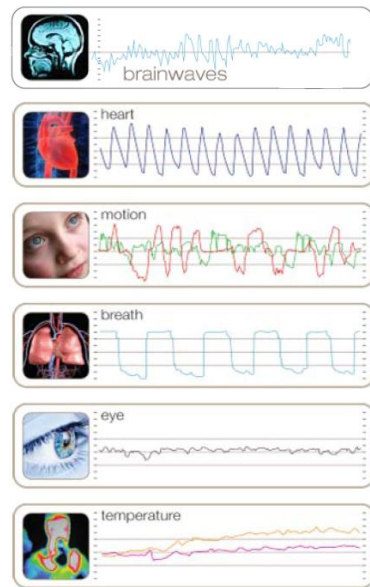
EmSense a "bio-sensing technology" firm based in San Francisco uses a variety of sensors included in their patent pending wireless headset to accurately gauge real player responses to complex gameplay. The technology allows then to measure everything from brainwaves to heart rate and temperature. The data collected is analyzed along four key dimensions, called **Emotion Vectors** – engagement, positive emotion, cognitive thought and adrenaline.



Techaisle had the opportunity to explore one such analytical study which promoted it write a white paper on the topic.

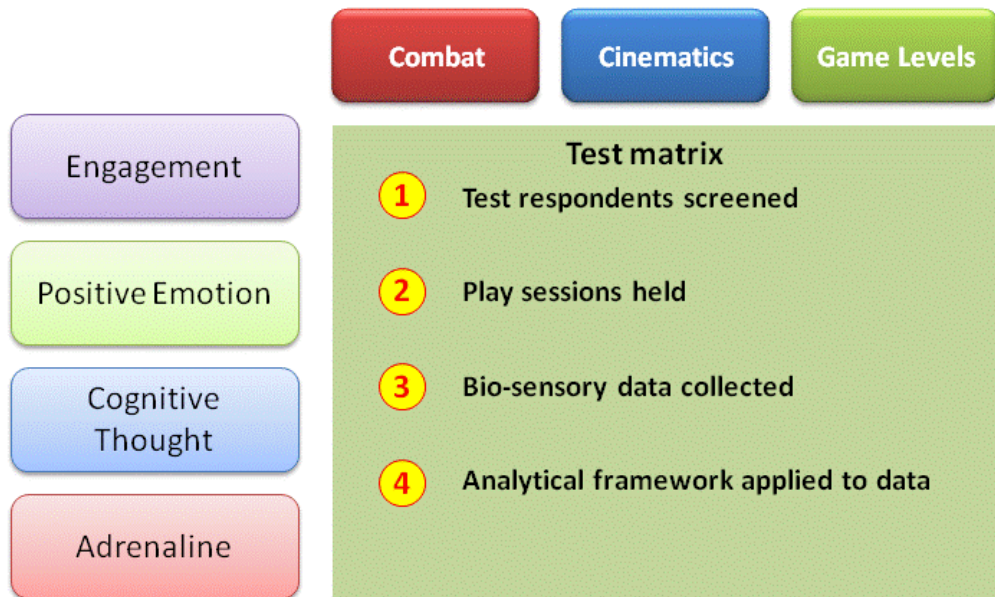
The said study was recently conducted by Absolute Quality, an e4e company along with EmSense and it exposes the gap between the experience as delivered by game developers and target consumers. The research tested attendees, namely, game developers, at the Game Developers Conference (GDC) in March 2009 in San Francisco, and a sampling of target consumers for a popular game from the shooter genre.

Over the course of several days, 15 minute gameplay sessions were held with conference attendees, simultaenously measuring gameplay and bio-sensory response. GDC attendees include those employed in game development, testing and associated businesses. The target consumer group is comprised of those owning or having access to an Xbox 360 and who play first-person shooters on a regular basis, but are not employed as game testers or developers.



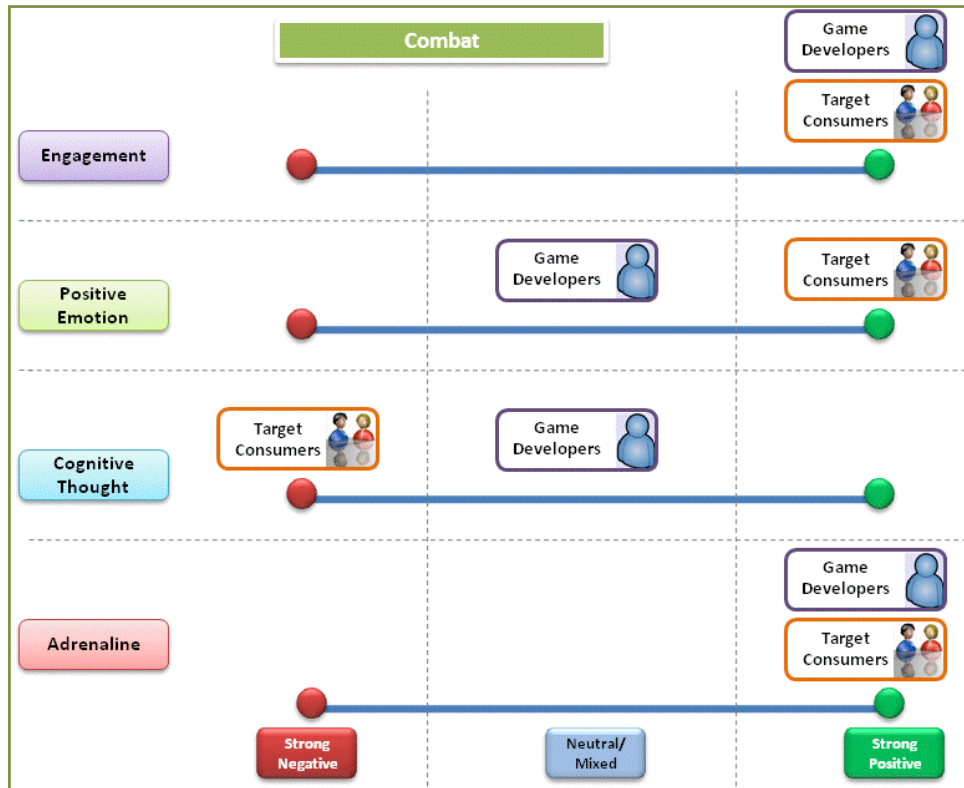
### CAPTURING THE EXPERIENTIAL DIFFERENTIAL

Game developers and target consumers differed significantly along the four dimensions tracked by the study - engagement, positive emotion, cognitive thought and adrenaline. The study examined their responses during various parts of the game, including combat, cinematics (interactive dialogue and cutscenes) as well as game levels.



**GAME DEVELOPERS AND TARGET CONSUMERS APPROACH A GAME DIFFERENTLY**

Overall, game developers and hardcore gamers were much more tactical and thoughtful in their approach to the game while the target consumers were more opportunistic playing a “run and gun” style game rather than using a methodical approach.



Game developers and target consumers differed in specific aspects of the game as well. During combat for example, while both types of participants were highly engaged, target customers exhibited less thought than game developers. It appears that the developers approach the game as an intellectual challenge, while target consumers are looking for entertainment value.

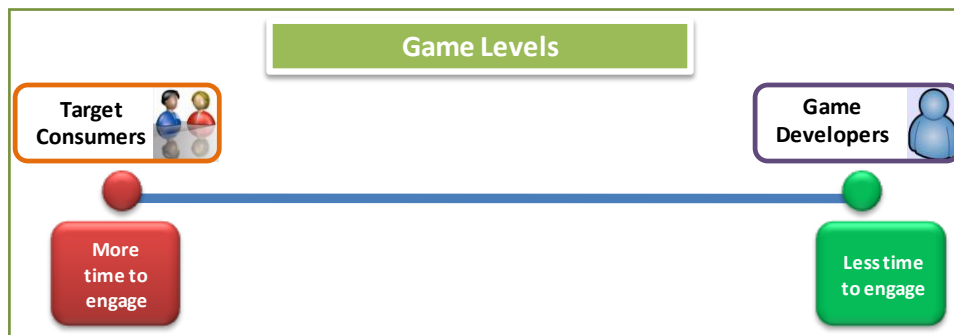
*In each of the two combat scenes tested, game developers responded with higher engagement than their target audience. In fact, 93% of game developers showed above average engagement, while the target audience only demonstrated above average engagement 62% of the time.*

*On the other end of the spectrum, in three encounters which featured little in the way of obvious scripted events, game developers showed above average engagement only 24% of the time. The target audience, however, still engaged to these more run-of-the-mill combats in 61% of cases.*

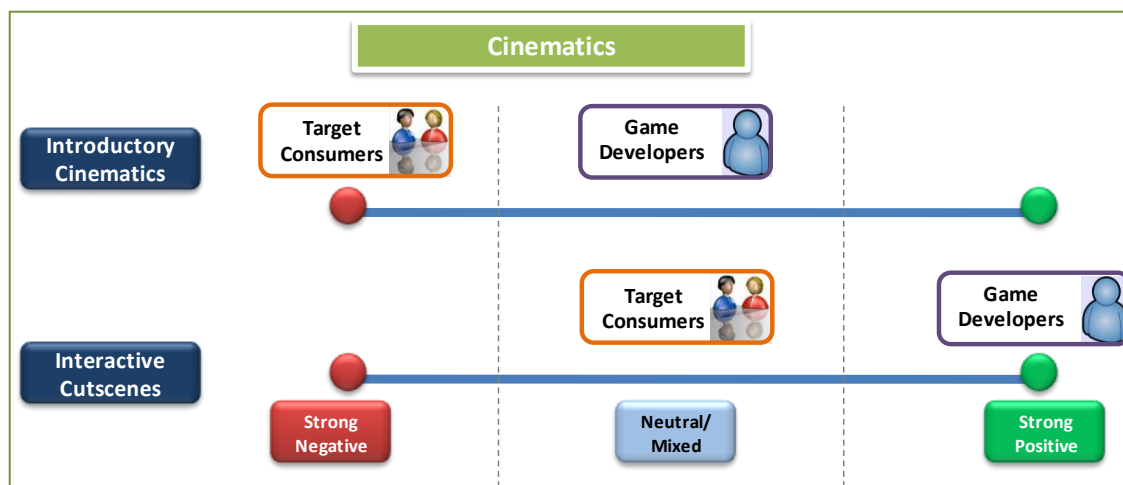
**DIFFERENCES GO BEYOND CORE GAMEPLAY TO INCLUDE CINEMATICS AND CUTSCENES**

Such differences were observed in cinematic aspects of the game as well.

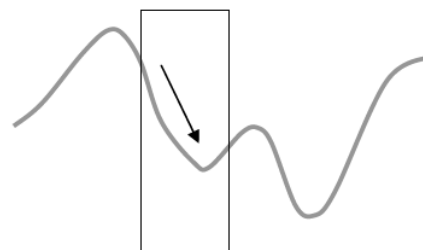
During introductory cinematics, the target audience showed negative emotions while game developers were largely neutral. During interactive cut scenes the game developers were much more involved while target audience remained neutral. This suggests that the cinematics were not as important among the target consumers and reflects their run and gun style approach to the game.



As participants progressed through different levels, the time taken to engage varied for game developers and target consumers, the latter taking longer to get engaged in the game at each level.



The study was also able to identify certain problem locations within the game that was used for testing. These locations are termed "hot-spots" where both the game developers and the target audience suffered disengagement.



**GENDER MATTERS**

*Men were only engaged by cutscenes 37% of the time, while women showed directionally above average engagement to the same events. Furthermore, men responded with positive emotions in 53% of cases--an essentially mixed set of responses--while women responded with a directionally below average emotional response. Essentially, women were more likely to respond to and internalize dire situations within a game than their male counterparts.*

The study also revealed significant differences in approach and experience among males and females. During combat, males exhibited a classic strong response to combat exhibited by high adrenaline but with low thought. While females exhibited high adrenaline as well, they consistently exhibited low positive emotion.

Reactions to cinematics varied as well - females showed strong negative emotion to dark material in the introductory cinematics while males engaged cognitively rather than emotionally. However, Females showed directionally more cognition at the start of interactive cut scenes, and also engaged more strongly than males.

**CONCLUSION**

The study conducted thus shows some significant experiential differences between game developers and the intended target audience for the game. This clearly has marketing and development implications particularly given the hit-or-miss nature of the gaming industry. While not all target consumers can be expected to be equally satisfied with a game or with all the elements of a game, the research reveals that differences exist for core elements of a game (such as combat).

Game Developers	Target Consumers
● Tactical, Thoughtful	● "Run-and-Gun" style
● Methodical	● Opportunistic
● Play for Intellectual Challenge	● Play for Entertainment Value
● Cinematics are important	● Cinematics are not as important
● Engage faster at progressive levels	● Engage slower at progressive levels

Given how target consumers approach a game, if they are required to be extremely methodical and tactical in their approach, the game's appeal may likely diminish over time. There is a definite need to conduct additional tests and studies with larger sample sizes but suffice to say – using such research techniques during design phase of a game could conceivably improve chances of meeting target market's expectations.

ABOUT TECHAISLE	ABOUT ABSOLUTE QUALITY
<p>Techaisle is a market research and consulting company focused on Emerging Markets, Emerging Technologies and Interactive Entertainment. Techaisle has pioneered a business model which is very different from traditional market research organizations. Techaisle provides actionable data delivered as an answer to a specific question. Techaisle provides services in five major areas:</p> <ul style="list-style-type: none"> <li>● Global Market Sizing, leveraging one of the most comprehensive opportunity sizing databases in the industry,</li> <li>● Survey Research for End Users through our database of over 80,000 businesses in 15 countries,</li> <li>● Survey Research for Distribution Channels, using our database of over 37,000 channel partners worldwide,</li> <li>● Custom Market Research, which combines one or more of these with strong analytical capabilities to uncover opportunity for clients.</li> <li>● Segmentation, based on algorithms that are easily understood, easily deployable and drive actual sales and market understanding.</li> </ul> <p>Techaisle’s Market Data-as-a-Service offered through <a href="http://marketviewportal.com">marketviewportal.com</a> makes available for purchase just the data you need, when you need it and how you need it – from regional market opportunity to individual channel partner contact details in Beijing or Mumbai.</p> <p>For more information on Techaisle or its global products/services, please visit <a href="http://www.techaisle.com">www.techaisle.com</a> or call 408-914-2989.</p>	<p>Absolute Quality’s Consult, Implement Operate (CIO) Services addresses critical operational problems across the entire business cycle of a game publisher. This includes crucial aspects such as game design and analysis, market perception of new game concepts, implementation, testing and quality management of new games, and finally revenue acquisition and support of games that are released in the market.</p> <ul style="list-style-type: none"> <li>● Consulting Services serve as an aid in collecting, analyzing and acting upon customer feedback to improve customer experience before or during games production.</li> <li>● Implementation Services are world class services for implementing games and perfecting game quality, giving game publishers the ability to launch better games for less money than going it alone.</li> <li>● Operational Services help support the customers, channels and partners so that the game publisher’s business operates smoothly and remains scalable</li> </ul> <p>To learn more about Absolute Quality, please visit: <a href="http://www.absolutequality.com">www.absolutequality.com</a></p>