

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND
Southern Division (Greenbelt)**

BETHESDA SOFTWARES LLC,

Plaintiff/Counter-Defendant,

v.

INTERPLAY ENTERTAINMENT CORP.,

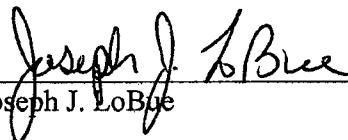
Defendant/Counter-Plaintiff.

Civil No. 09 CV 2357 (DKC)

RULE 26(a)(2) DISCLOSURE

Pursuant to Rule 26(a)(2) of the Federal Rules of Civil Procedure and the Court's order dated April 27, 2011 in the above-captioned case, Bethesda Softworks LLC ("Bethesda") identifies Thomas Bidaux, 43 Argus Lofts Robert Street, Brighton BN1 4AY, United Kingdom, as a witness that Bethesda may use to present expert evidence at trial. A copy of Mr. Bidaux's report accompanies this disclosure.

June 17, 2011


Joseph J. LoBue

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EXHIBIT 1

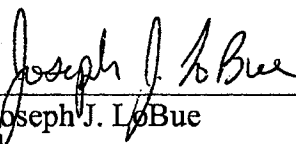
CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of June, 2011, I served by First Class, postage paid United States mail the foregoing Rule 26(a)(2) Disclosure and accompanying Expert Report of Thomas Bidaux on the following:

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Joseph J. LoBue

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EXPERT REPORT OF THOMAS BIDAUX

1. I am currently the Chief Executive Officer of ICO Partners. ICO Partners is a UK-based consultancy company specializing in online games development and operating them in the European market.

2. I have been asked by counsel for Bethesda Softworks LLC in the above-captioned case to describe the tasks, activities and requirements necessary to develop a massively multiplayer on-line game ("MMOG"). I base the conclusions and opinions expressed in this report on my 11 years of experience in the on-line gaming industry.

QUALIFICATIONS

3. I have been working in the online game industry since December 1999 when joining France Telecom's online game subsidiary GOA.com as an event and operations manager for their MMOGs. There I was in charge of all the operational side of the France Telecom business related to MMOGs, including the relationship with the development studios. In 2004, I joined Korean online game company NCsoft to build their operations in Europe. At NCsoft Europe, I was Director of Product Development and I supervised all the operational activities related to the game development, and was in charge of expanding the company's portfolio of games from products developed in Europe, as well as appraising games being developed in North America and in Korea as a member of the GPS committee (Global Portfolio steering committee). While at NCsoft, I was actively involved in supervising the development of around eight MMOGs as well as around six online games and the evaluation of a larger number of other games. In 2008, I founded ICO Partners, my current consulting agency, advising international publishers and European studios on the development and operations of online games, including MMOGs. In the past 3 years, I was directly involved in the audit of the development of three MMOGs as well as acted as a consultant for five publishers of MMOGs.

MMOG DEVELOPMENT

4. An MMOG is the acronym for Massively Multiplayer Online Game, a specific category of online games. There are a number of expectations coming from the use of the term that I believe most actors of the sector would agree on. From the name of this category, I think the most significant term is “massively”. In the past years, a number of games have appeared on the market that have taken the online multiplayer experience further than their predecessors, however few games are providing the “massive” game experience. For a game to be considered an MMOG, it has to offer to players a game experience where at least 1000 players can actively be playing in the game space (3d rendered game space) with the ability for their game avatars to be physically present at the same time on the same screen without having to use an “instance”. Instances are pieces of the virtual location that do not exist persistently in the game space and that are made accessible on demand for the players and generally provide a hard limit on how many players can access it. A very good example to consider is NCsoft’s Guild Wars online game. While providing many features frequent in MMOGs, it is currently not considered an MMOG because of its extensive use of instances. To further clarify this point, in an MMOG, a player should be able to have his/her avatar travel through the game geography and meet with any players currently playing in the same geographical zone and the same shard (an artificial sub-division that put players into groups of 1000 online players or more) without having to use any “out of the story” medium such as an “instance selector”. For technical reasons, some MMOGs have put some limitations on how many players can be present at a given point in the game geographical space, but this number is usually in the hundreds of players.

5. Other features are part of any MMOG, but not exclusive to MMOGs. They all require an internet connection for their users to play the game; the most significant part of the game logic runs from servers hosted by the game’s publisher; the vast majority of the data of the game are stored on servers hosted by the game’s publisher; the evolution of a player’s avatars is persistent between game sessions and beyond his/her direct control; players of the game have the ability to chat online with each other; the content of the game is significant and offer hundreds of hours of game experience for its first “play through” – taking an avatar to its maximum level and experiencing with it the vast majority of the game features (300 hours is considered a healthy target for a game at launch); players can connect with each other with a number of social features (friends list, guild system).

6. To develop an MMOG is as a significant task and it is considered the game genre the most difficult and the most expensive to develop. To develop such a game you need the following:

- Engine and tools: MMOGs require a rendering engine (internally created or licensed in which case it still requires additional work), a game server engine, a network solution, a game database solution, a customer support solution, and a vast amount of content production tools (world building tool, quest creation tool, itemization tool, and more based on the game specific design).
- Concept Art: Considering the vast amount of content expected for current MMOGs, it is considered best practice to hire multiple concept artists to create art for all

the different environments as well as the game's creatures and characters prior to those being developed. The volume of art will vary between MMOG teams though, some team iterating a lot more than others.

- Character modeling: As for the character modeling, a great volume of content needs to be created for an MMOG. MMOGs traditionally offer a very rich character creation system, meaning that there is a lot of variation to create and they all need to be compatible with each other. Also to provide variety throughout the game, the Non Player Characters and the antagonists offering challenges to the players have to be original and fresh and need a lot of different models.
- Weapons/object modeling: Similar to above, but relating to weapons and objects.
- Texture art: Similar to above, but relating to artistic textures for the models.
- Environment/scenes modeling: MMOGs offer a vast content in terms of antagonists but the same is true for environment. Environments and scenes need to be vast and varied.
- Animation: All the player characters need to be animated, all the combat animation need to be able to chain in an harmonious way and all enemy creatures need animation for their movement, combat moves, special abilities and death. You need to add to this "emote" animations that allow players to make their avatar move in a predetermined way, usually to make him convey extra meaning for his interactions in the game world (typical emotes include dancing, waving, laughing, crying for instance).
- UI design: MMOGs are fairly rich and complex games with higher than normal game features. Building a User Interface that is both intuitive and complete is a complex task that requires a lot of work.
- Character quests/tasks: A lot of the game content is centered around characters' quests and building enough of them is very important. They will be a part of most of the time the player spends on the game. The quality of quests in MMOGs has greatly improved in the past few years and they need to be more and more sophisticated to be on par with the quality of the current market, increasing the costs to build this part of the game. It is considered that a game should now launch with a minimum of 1500 quests to be on par with the competition. The definition of what a quest represents varies from game to game. The number I use here as a reference point is similar to the quest format from World of Warcraft.
- World building: Working in parallel with the above tasks, world building is the task of taking the world 3d assets and populating them with NPCs and creatures and objects and associating the quests to the locations and element of the environment they require. Part of this task is also the requirement to write the backstory of the world to provide a context for both concept artists and quest writers. Even when using an existing

intellectual property, the volume of content needed is large so that there is a need for a writer or writers to complement what is already readily available.

- Voice, sound effects and music: In addition to the visual elements, MMOGs also have voice, sound effects and music requirements. Voice content is not as critical in MMOGs as in other games. Most MMOGs use voice content for the narrative of cut scenes (generally limited in numbers in MMOGs) which includes about 2 to 3 hours worth of audio dialogues. There are exceptions where more voice content is used. MMOG sound effects and music need to offer enough variations for the player to feel comfortable with them over hundreds of hours of play time. The standard would be to have a minimum of a couple of hours of music variations.

- Game mechanisms: MMOGs are complex games with more than one set of game mechanisms: combat, character progression, crafting of items, etc. For each of those systems, they usually have a set of options for the users, to offer a varied experience as well as opportunities to start the game over to enjoy a different experience. These mechanisms need to be designed but they also need to be balanced to each other due to the multiplayer nature of the game. If the game is offering a Player Versus Player experience, the need for the systems to be balanced becomes even more important. This can only be achieved by having a team dedicated to their design and balance. This team usually has to create all the features of the game, including things like the social and communication features, the integration in the game of the customer support tools, and the way the virtual economy of the game works.

- Web/account system localisation.

7. Developing an MMOG requires multiple members of the following disciplines:

- 3D engine programmer
- Network programmer
- Back end programmer
- Content tools programmer
- Service tools programmer
- Database programmer / Database specialist
- Audio programmer
- 3D model artist
- 3D texture artist
- Technical artist
- 3D animator
- Concept artist
- System game designer
- World designer
- Quests designer
- Writer

- Music composer
- Voice actors
- Producer (project manager)
- Website designer
- Account system programmer
- Quality Assurance manager
- Localization manager

8. The budget to create an MMOG can vary depending on the ambition for the title. For a game to meet high quality standards and be considered "AAA", the development would be in the region of 80 Millions USD over a 4 year development cycle. Even if one were not developing an MMOG to high quality standards such as AAA, there is probably no way to make a game from scratch in the U.S. or Europe for less than 20 million USD. That would roughly mean a development team of 40 people working for 3 years. Current trends show games that have development teams of 80+ people working on a game for 4 years or more.

9. MMOGs typically involve the following different steps to complete development: concept, prototyping, pre-production, full production, alpha, beta, commercial launch, live. Concept, prototyping and pre-production are design phases that involve little development of the actual content of the MMOG. The MMOG is being defined during that period, different technologies are being tested, the art style is determined. Any of these can change during that period. During pre-production specifically, all the elements required to enter full production are being put together, the final game engine is being determined, the production pipelines and the production tools are finalized. Any technology developed before and during the pre-production is subject to drastic changes and being scrapped for another, more suitable one. Once a game has entered the full production phase, the core technologies are not supposed to dramatically change (unless some challenge encountered in the process requires drastic modification to the plan). The technology will evolve throughout the development of the game, even after its commercial launch, during the live stage, but those changes should be limited to mere evolutions of existing design and technologies.

10. The differences in developing a game demo compared to the actual development of the MMOG are very drastic. To demo an MMOG to the press or to investors for instance, a team does not need to develop a lot of the final features that are essential to a final game. Specifically, a game demo does not require a scalable back end and network technologies, it does not necessarily represent the final art-style of a game nor its final game experience. Demos are done during the design phase of the game to provide a team or others with a sense of direction for the game. Demos often have most of their technology scrapped by the time the developers get into the real production work.

PRIOR TESTIMONY

11. I have not testified as an expert witness at trial or by deposition during the last four years.

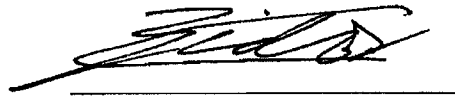
PUBLICATIONS

12. I was a contributing author to *Playing the Game: Insider Views on Video Game Development*, NESTA 2010.

FEES

13. Bethesda Softworks LLC has agreed to pay me consulting fees for my study and testimony in this case ranging from £900 to £1,200 per day depending on the duration of the engagement.

June 17, 2011



Thomas Bidaux