

游戏与流行病

Pandemic in Game

流行病：「Pandemic」爆发性，规模极大；「Epidemic」爆发性，有一定规模；「Endemic」长期或永久性，特定对象



墮落之血事件

Corrupted Blood

- **墮落之血事件**
- 「感染症の流行」とは—Corrupted Blood事件から考える

5.071 > [Epidemiology](#). 2007 Mar;18(2):260-1. doi: 10.1097/01.ede.0000254692.80550.60.

Modeling infectious diseases dissemination through online role-playing games

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Affiliations + expand

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Abstract

As mathematical modeling of infectious diseases becomes increasingly important for developing public health policies, a novel platform for such studies might be considered. Millions of people worldwide play interactive online role-playing games, forming complex and rich networks among their virtual characters. An unexpected outbreak of an infective communicable disease (unplanned by the game creators) recently occurred in this virtual world. This outbreak holds surprising similarities to real-world epidemics. It is possible that these virtual environments could serve as a platform for studying the dissemination of infectious diseases, and as a testing ground for novel interventions to control emerging communicable diseases.

- **墮落之血事件**
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- On late September 2005

《魔兽世界》客户端升级补丁 1.7.0 详细介绍 (2005-09-27)

祖尔格拉布

这座古老的巨魔城市位于荆棘谷的丛林之中，其中蕴涵了无数等待发掘的秘密。你是否已经准备好了去发掘这些秘密？祖尔格拉布是一个20人的高端副本，有120件新的稀有和史诗级装备等待你去发现。新的冒险正在等待你！

- **墮落之血事件**

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- “World of Warcraft” game

- new virtual creature **BOSS** ;
- had the ability to cast a disease (“corrupted blood”) on its opponents;
- the disease “infected” close contacts who could spread the disease to others in close proximity;



- Game administrators presumably believed that **the short period of infectivity** (several seconds), as well as its **highly lethal effect**, would render the disease **self-limiting**.

事实证明并非如此

This proved not to be the case

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- **诡异現象**

- When infected adventurers returned to town at the end of their quest, they inadvertently passed along the Corrupted Blood infection to those nearby.

- **墮落之血事件**

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- 诡异現象

- 玩家呼吁 “ 不要进城 ”

- **墮落之血事件**
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- 诡异現象
- 玩家呼吁
- **官方封城！！！！**

- **墮落之血事件**

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- 诡异现象
- 玩家呼吁
- 官方封城
- 事态恶化



- **墮落之血事件**

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- **仔细考究 — Several Epidemiologic Attributes**

- I. 恢复后缺乏残余免疫力 (the lack of residual immunity following convalescence)
 - 角色能够再次感染并重新进入传播周期

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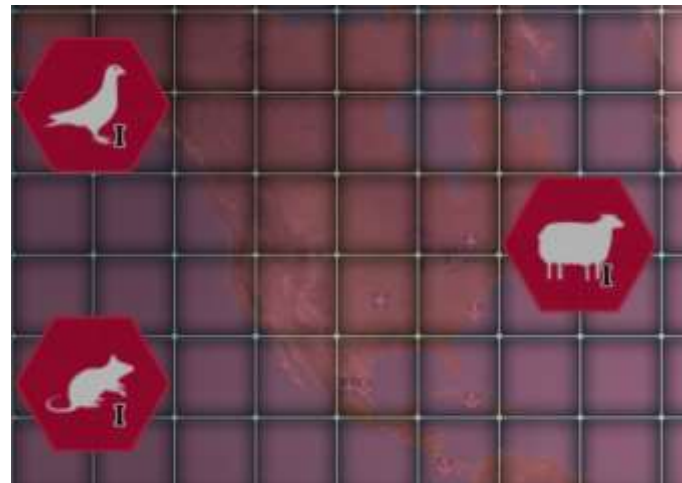
- **仔细考究 — Several Epidemiologic Attributes**

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- 角色能够再次感染并重新进入传播周期

- II. 对虚拟动物(“宠物”)的传染性 (infectivity to the virtual animals (“pets”))

- 病源增加且多样



- **堕落之血事件**

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- **仔细考究 — Several Epidemiologic Attributes**

- I. 恢复后缺乏残余免疫力 (the lack of residual immunity following convalescence)
 - 角色能够再次感染并重新进入传播周期
- II. 对虚拟动物(“宠物”)的传染性 (infectivity to the virtual animals (“pets”))
 - 病源增加且多样
- III. 不良性状可以传送 (ill characters could teleport)
 - 远距离传染



- **墮落之血事件**

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- **Besides**

- 事件起因

- BUG
- 两人相互循环传播进城

- **堕落之血事件**

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- **应用**

- **数学建模**

- 虚拟疾病的基本繁殖率可以被量化，特定人群的感染力可以被评估
- 预测的结果可以与受玩家依赖行为影响的实际事件进行比较

- **作为传染病传播假说的试验场**

- 跟踪疾病在特定人群中的传播模式
- 测试各种干预措施，包括治疗(免费分发或出售)、疫苗接种、隔离和检疫

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- **补充完善**

- 人族、魔族、兽族等等，各自对该疾病**抵抗能力**不同
- 传染病不会变异，建议引入**人工智能****随机**修改参数

- **墮落之血事件**
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Plague Inc.



- **墮落之血事件**

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- **Measures**

《魔兽世界》客户端升级补丁 1.8.0 详细介绍 (2005-10-11)

- 修正了哈卡的**墮落之血**对于宠物作用的错误。

《魔兽世界》客户端升级补丁 1.9.3 详细介绍 (2006-02-07)

墮落之血现在直接造成伤害，并附带有一个持续性伤害效果，并不会再向全团队传染。

修正了一个**墮落之血**只能对哈卡的当前目标，而不是设计中的随机目标产生效果的错误。

- eventually cured the plague with a “spell” that was distributed rapidly to players en masse.

• 参考文献

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