**Ethical Analysis**

**Based on Ethical Theories**

# Case title: Malware Disruption

**From ACM code of Ethics**

**Case description:**

**Rogue Services advertised its web hosting services as “cheap, guaranteed uptime, no matter what.” While some of Rogue’s clients were independent web-based retailers, the majority were focused on malware and spam. Several botnets used Rogue’s reliability guarantees to protect their command-and-control servers from take-down attempts. Spam and other fraudulent services leveraged Rogue for continuous delivery. Corrupted advertisements often linked to code hosted on Rogue to exploit browser vulnerabilities to infect machines with ransomware.**

**Despite repeated requests from major ISPs and international organizations, Rogue refused to intervene with these services, citing their “no matter what” pledge to their customers. Furthermore, international pressure from other governments failed to induce national-level intervention, as Rogue was based in a country whose laws did not adequately proscribe such hosting activities.**

**Ultimately, Rogue was forcibly taken offline through a coordinated effort from multiple security vendors working with several government organizations. This effort consisted of a targeted worm that spread through Rogue’s network. This denial-of-service attack successfully took Rogue’s machines offline, destroying much of the data stored with the ISP in the process. All of Rogue’s clients were affected. No other ISPs reported any impact from the worm, as it included mechanisms to limit its spread. As a result of this action, spam and botnet traffic immediately dropped significantly. In addition, new infections of several forms of ransomware ceased.**

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| **comprehension** | **Fact** | **Involved parties** | **Claims** | **Outcomes** | **consequences** | **Time critical?** |
| Description | 1. Rogue Web hosting advertised as guaranteed uptime, no matter what. 2. Rouge refusal to intervene 3. Rouge was forcibly taken offline using a targeted worm (DOS) 4. Clients data destroied | 1. Independent retailers 2. Malware/spam clients 3. Command and control service clients 4. ISPs 5. Internet users | 1. Reliability 2. Vulnerability 3. No impact on others as a consequence of DOS | 1. Rouge clients data destroyed 2. Rouge clients offline 3. Spams ceased | spam and botnet traffic immediately dropped significantly | no |

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| Analysis | F1 | F2 | F3 | F4 | P1 | P2 | P3 | P4 | P5 | C1 | C2 | C3 | Out1 | Out2 | Con1 |
| Egoism | 1 | 1 |  |  | 1 |  |  |  |  | 1 |  |  |  |  |  |
|  | 1 | 1 |  |  |  | 1 |  |  |  |  | 1 |  |  |  |  |
|  | 1 | 1 |  |  |  |  | 1 |  |  | 1 | 0 |  |  |  |  |
| Utilitarianism |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Altruism |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Deontic logic:** Obligations |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Permission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Overall deontology** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Human Nature:**   1. Anticipating the consequences 2. Value judgement 3. Choose an alternative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Hedonism:**  Maximize pleasure  Minimize pain |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Emotivism:** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Relative environments:**  **Culture:**  **Society:**  **Individual:** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Case: Dark UX Patterns

The change request Stewart received was simple enough: replace the web site’s rounded rectangle buttons with arrows and adjust the color palette to one that mixes red and green text. But when Steward looked at the prototype, he found it confusing. The left arrow suggested that the web site would go back to a previous page or cancel some action; instead, this arrow replaced the button for accepting the company’s default product. The right arrow, on the other hand, upgraded the user to the more expensive category; it also silently added a protection warranty without asking for confirmation. Stewart suggested to his manager that this confusing design would probably trick users into more expensive options that they didn’t want. The response was that these were the changes requested by the client.

Shortly after the updates were released into their production system, Stewart’s team was invited to a celebration. As a result of these changes, revenues at their client had increased significantly over the previous quarter. At the celebration, Stewart overheard some of the client’s managers discussing the small increase for refunds by users who claimed that they didn’t want the protection plan, but there weren’t many. One manager noted several complaints from visually impaired users, who noted that the mixture of red and green text obscured important disclaimers about the product. “So what you’re saying, then, is that the changes worked as planned,” quipped one of the managers.

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| Analysis | F1 | F2 | F3 | F4 | P1 | P2 | P3 | P4 | P5 | C1 | C2 | C3 | Out1 | Out2 | Con1 |
| Egoism | 1 | 1 |  |  | 1 |  |  |  |  | 1 |  |  |  |  |  |
|  | 1 | 1 |  |  |  | 1 |  |  |  |  | 1 |  |  |  |  |
|  | 1 | 1 |  |  |  |  | 1 |  |  | 1 | 0 |  |  |  |  |
| Utilitarianism |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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