

Neural Network Hacking (update needed)

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Neural networks is one of the primary sources of information-exchange and storage in the average citizen. The majority of the population receives standard issue neural interfacing in the womb through non intrusive nano-surgery methods. This not only allows for networking and communication at close to the speed of light but also interfacing with cybernetics and other augmentations throughout their lifetime. The nano-optronic wiring throughout the brain allows for data transfer of organic information. The degree of cybernization in the brain varies from user to user and fully encased augmented brains are common within the corporate society. In rare occasions near fully augmented brains can be found with a minimal of the original brain and stem left. These methods ensure that society is in a constant state of connectivity with the networks throughout the entirety of the city. The benefits of connectivity is evident in the use of modern technology such as communication, information exchange, multitasking, media etc. Because of the nature of this communal connectivity it is important to ensure the safety of information exchange usually in the design of a barrier which protects the data.

The safest means of information exchange is still direct point to point connection via port located usually on the back of the neck or side of the temple. This direct connection allows no interference or interception from outside sources and has become the standard operating procedure in high value communication or data exchange.

While the majority of a users neural network is connected to the cities servers the citizen may always opt to go into a self induced autism mode where they are disconnected from any network. Some corporate security systems that use both methods of biometrics and constant interfacing with a users neural network for clearance will flag anyone going into this silent state. However this is usually practiced to isolate a users network for various reasons, mainly for security.

Barriers protect the transition of digital information to organic memory and range in degrees of protection. They act like firewalls of the mind and while their main operating factor is defense they also vary in execution and response to threats. Gaining access to a players organic memories as well as their neural network has multiple implications on roleplay. A hacker could access, change or erase a players memory or even swap minds, hijacking the users body. Obviously these kind of cyber crimes are of the highest concern and the barriers used range from simple trace viruses to injuring or killing a would be hacker who fails.

Before any rolls or made or any hacking attempt is done you first need to IM the player asking them for permission to do so. Do not be offended if the player declines or opts to do the entire hack through roleplay. However if they do agree feel free to proceed.

The following rules describe how barriers protect players from attacks as well as expands on an appropriate response to such an attack. The main focus is on the hacking skill and like any hacking

check it is done on a 1-100 roll where the roller tries to roll under their skill percentage with one exception. The barrier in the target player modifies the roll. For instance in a mid grade barrier you will find it modifies the roll by adding an additional 30 to any roll made. For example if a players hacking skill is a 60 and the player rolls a 40 they still fail the roll due to the modifier adding an additional 30 to the roll made, $(30+40=70)$. When a player fails to hack the nature of the barrier decides the appropriate response, it may lock the player out not allowing another hack for maybe an hour or a day. I will list the different barriers players may begin play with and expand on the more elaborate ones that can only be obtained through roleplay.

Beginning players may choose barriers from the following list:

Barrier Grade Alpha: +10 to all hacking rolls - critical fails on 80% or above. Upon fail the system locks out all future hacking attempts for twenty four hours. Critical fails the hacker is traced.

Barrier Grade Beta: +20 to all hacking rolls - critical fails on 90% or above. Upon fail a hacker is locked out for two hours. Critical fails the hacker is traced.

Barrier Grade Charlie: +30 to all hacking rolls - critical pass on 20% or lower. Upon fail the hacker is locked out for an hour. Critical fails the hacker is traced.

Players may only choose only one barrier and these few listed represent the mainstream barriers for commercial use. More diverse and customizable barriers will have to be obtained in world and will be covered on the cybernetics list when it becomes available.

Upon a successful hacking roll the targeted player may choose to retaliate with a saving throw of perception. Certain software the hacker might be using may modify the players perception check however for simplicity sake players will not be able to use these features yet. If the player succeeds at the saving throw the hacking is cancelled and the player is aware someone tried to access their network but was stopped by the barrier. This does not mean the hacking player is traced to to their source. A hacking player who is spotted this way may choose to hack again but does so at a +10 to the barriers modifier each time they are spotted. A player however who succeeds at a their saving throw may opt to go into autistic mode to end the hack. If the hacker rolls a critical success no saving throw can be rolled in response.

Here is a following example of the breakdown: Willis wants to hack into Toto's brain and rolls a 20. Toto chose a Barrier Grade Beta to begin with which adds a +20 to Willis's roll making it a 40 (20+20=40). Willis's hacking skill is 50% so he succeeds in his hacking attempt. Toto rolls Perception as his saving throw and rolls a 30. His perception is 70 so Toto notices someone trying to access his brain. Willis is unable to hack unnoticed, decides to try again and rolls a 35, adds the barrier modifier of 20 and an additional 10 since Toto is aware of the hacking attempt and on guard. Willis ends up with a total roll of 65 (35+20+10=65). He fails the hack and is shut out of any further attempts for two hours. Toto, aware that someone is trying to hack him, decides to disconnect from the city's network and goes into autistic mode so no further hacking attempts can be done.

What happens while the hacker has gained access to the characters mind is up to the players to decide. While the character may be under duress they still retain awareness to a degree and much like a hypnotized person they can be manipulated to perform tasks unusual to the character. However outright commands may not work on anyone less than fully augmented so players are encouraged to alter or manipulate a character together. Just because a player is hacked by another doesn't instantly turn that character into a super cyborg killing machine. The limitations of the character are still present and the character may not accept the manipulation if it outright contradicts their personality. The smaller the changes to memory the greater the inherent acceptance of the character being manipulated. Tricking the character is key here to get them to perform tasks for the hacker. I strongly encourage players to take their time discussing all this in detail together to find the best way for them to approach the scenario. Get a gm involved if you need a final say or suggestions. Communication and consent is paramount for this to remain an enjoyable roleplay experience for everyone involved.

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