How power and social control in the gatekeeping role are changed when gatekeeping is compturized

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There has been an increasing number in computerized gatekeeping with the growth of technology. Some computerized gates have a human aspect to them. If there is a human element to the computerized gate, it can be bypassed by an "attacker" using Neuro-linguistic programming (NLP). RSnake, a popular security researcher defines NLP as:

> "...a theory comprised mainly of mapping patters in human thought, and striving for discernible predictability in those patterns. It is more or less considered to be a trendy version of hypnosis. NLP advocates also believe it increases awareness, and while one increases awareness in oneself, it is easier to achieve a closer approximation of what people as a whole would do in any certain situation. Of course there are many variations on these theories, put into practice. (RSnake website)

The idea of NLP is to try to convince the victim to do what you want by using interpersonal communication (Wikipedia NLP). Therefore, using communication skills and models like NLP attackers are able to to bypass computerized gatekeepers by using normative social control of the human aspect to the computerized gate. A common example from the industry is social engineering a helpdesk employee to perform an action on another user account. This is still a computerized gate however, since there is a human aspect to it attacking the human aspect is the easiest way to breach the security of the system.

When gatekeepers are computerized one of many things can happen: the gate can become more secure, the gate can become less secure or the gate can change in the way it is secure by becoming more

secure in certain areas and less secure in others. The risk of NLP and social engineering depends on the amount of access humans have to computerized system and the number of humans with this type of access. There is a risk of social engineering if humans have a method to open the gate at all. Further, the quality of the computerized gatekeeper will depend on the amount of resources allocated to transition to a computerized method.

The type of protection needed for a gate depends on the type of information the gate is protecting, greater security could be put in place to protect the gate if the information or assets within the gate are of extreme value. One example of this is banks and banking websites, which usually requires greater security. The funny about this is that banks are still vulnerable to the same types of attacks as any other organization. While writing this essay, I checked on-line and found that a bank was robbed using only social engineering (Washington Post article). This type of social control is normative, which was very effective since they were able to walk into the bank, take the money and walk out without setting off the alarms. Obviously, the traditional method of robbing a bank is using a gun and threatening the clerks, which is coercive social control (Perrolle website).

Now imagine a website that has a registration aspect to it. However, this website does not properly validate all the various types of data that can be entered into the forms. This was the issue presented recently in a popular web-comic (http://xkcd.com/327/) The comic displays a mother receiving a call after a database was dropped due to poor input validation. Obviously, this would really never happen in the real world but it does raise the issue related to computerized gatekeeping. The data that was entered contained an SQL statement that was able to execute due to poor input validation. Computer

vulnerabilities such as SQL injection are common on-line. SQL injection can be used to bypass the user authentication of many websites and sometimes even gain administrator privileges.

Sometimes people follow the computerized gatekeeper without thinking of their own. For example, many of the TSA incidents have occurred where people have been stopped because their names have been found on a terrorist list. This happened recently, to a 5 year old boy and to senator Ted Kennedy (Boingboing Article and Giuliani Article). This is rather sad because the computer has determined that the individuals should not be allowed to fly due to a common set of limitations or rules and the human is following what the computer says without using any context. The reality is that both of these individuals are not a threat to the TSA and therefore should be allowed to board the airplane. The computerized system doesn't have the logic to determine this and the fact that the human security personnel still restricted access just underlines the point that computer systems have flaws and that additional logic is needed.

In conclusion, computerized gatekeepers are only as strong as the restriction put in place by the people that have made them. The problem is that in this digital age the only constant is change. Therefore, people who are involved in the computerized gatekeeping process need to be aware of various issues so that they are able to deal with issues in the context that they arise. Computerized systems will need to be able to adapt changes in the environment which they are being used so that they are able to meet the needs of the future. Further, if additional logic needs to be built into the the computerized gatekeeping systems this should be done rather then allowing a system that is flawed to continue to run. Computerized validation systems should be tested, improved and retested consistently to verify there are no weaknesses

in the computerized aspects of the gates. Furthermore, human aspects of the gate should be informed of the risks related to social engineering and NLP so that they can prevent various types of security breaches. A gate that is more secure is something that is important in the digital age.

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