Detecting Deceptive Patterns in Phishing Emails
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**Problem Statement**
Identify cues for/patterns of deception within phishing emails to help users detect deceptive requests.

**Motivation**
- Email users become more aware of phishing emails.
- Prevents private data from being accessed by unauthorized users.
- Saves individuals and corporations a lot of money.

**What Has Been Done?**
- PhishNet-NLP
  - Lexical Analysis
  - Stemming
  - Part-of-Speech Tagging
  - Stop Word Removal
  - Named Entity Recognition
  - Normalization of Words to Lower Case

- PLIFER Tools
  - IP-Based URLs
  - Redirecting Site
  - HTML Email
  - Number of Links
  - Number of Dots
  - Age of Linked-to Domain

**Pattern Organization**

**Part of Sample of a Phishing Email**
Dear valued PayPal member: PayPal is committed to maintaining a safe environment for its community of buyers and sellers.

To protect the security of your account, PayPal employs some of the most advanced security systems in the world and our anti-fraud teams regularly screen the PayPal system for unusual activity.

Recently, our Account Review Team identified some unusual activity in your account.

In accordance with PayPal’s User Agreement and to ensure that your account has not been compromised, access to your account was limited.

Your account access will remain limited until this issue has been resolved.

This is a fraud prevention measure meant to ensure that your account is not compromised.

In order to secure your account and quickly restore full access, we may require some specific information from you for the following reason: We would like to ensure that your account was not accessed by an unauthorized third party.

Because protecting the security of your account is our primary concern, we have limited access to sensitive PayPal account features.

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