



(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0029341 A1**
Juels et al. (43) **Pub. Date: Mar. 7, 2002**

(54) **ROBUST VISUAL PASSWORDS**

Publication Classification

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(51) **Int. Cl.⁷** **H04L 9/32; H04L 12/22**
(52) **U.S. Cl.** **713/184; 713/202; 708/135**

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(57) **ABSTRACT**

(21) Appl. No.: **09/815,560**

(22) Filed: **Mar. 23, 2001**

Enrollment and authentication of a user based on a sequence of discrete graphical choices is described. A graphical interface presents various images and memory cues that a user may associate with their original graphical choices. Enrollment may require the input to have a security parameter value that meets or exceeds a threshold. An acceptable sequence of graphical choices is converted to a sequence of values and mapped to a sequence of codewords. Both a hash of the sequence of codewords and a sequence of offsets are stored for use in authenticating the user. An offset is the difference between a value and its corresponding codeword. Authentication requires the user to enter another sequence of discrete graphical choices that is approximately the same as original. The offsets are summed with the corresponding values before mapping to codewords. Authentication requires the sequence of codewords, or a hash thereof, to match.

Related U.S. Application Data

(63) Continuation-in-part of application No. PCT/US00/03522, filed on Feb. 10, 2000, which is a non-provisional of provisional application No. 60/137,687, filed on Jun. 4, 1999said application application number is a non-provisional of provisional application No. . Continuation-in-part of application No. 09/544,809, filed on Apr. 7, 2000. Non-provisional of provisional application No. 60/191,708, filed on Mar. 23, 2000.

