

Distributed Thinking a.k.a. Human Computation

Paul Ivanov

<http://nomeans.net/>

SHDH 20

October 13, 2007

Some slides and much of the content courtesy David P. Anderson. Used with permission. His email: davea@ssl.berkeley.edu (recent talk titled "Citizen Cyber-Science.")

SETI@Home or Folding@Home but with people cycles.

David P. Anderson - Distributed Thinking

- SETI@Home → BOINC (and its various subprojects),
 - (BOINC is an infrastructure for volunteer computing)
- Stardust@home → Bolt & Bossa
 - Bolt - online training & education
 - Bossa - Distributed Thinking
 - email David if you want to help / participate

University of Washington - Baker Lab

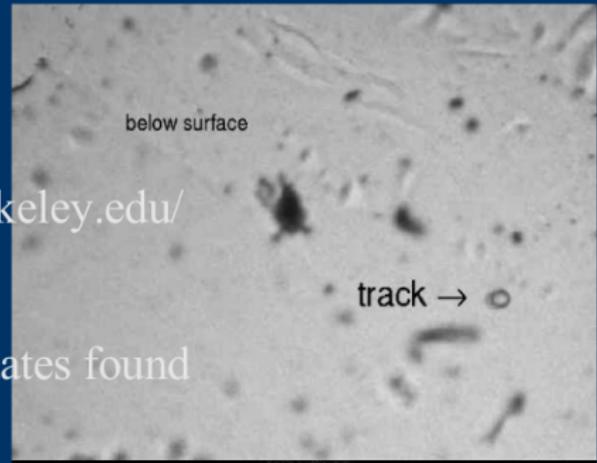
Rosetta@Play - protein folding **game**

Luis von Anh - Human Computation

- The ESP Game, Peek-A-Boom, and Phetch - Social tagging
- reCAPTCHA - stop spam and digitize books.
- great Google Tech Talk ("Human Computation")

Stardust@home

- The Stardust mission
 - 1999-2006
 - collect cometary, interstellar dust
- Where's the dust?
 - aerogel collector
 - 100K “focus movies”
- Stardust@home
 - <http://stardustathome.ssl.berkeley.edu/>
 - 23,000 volunteers
 - 43M viewings
 - 14 verified tracks, 50 candidates found



Rosetta@play: a protein-folding game

The screenshot displays the Rosetta@play game interface. The central 3D model shows a protein structure with grey and orange components. The interface includes a menu bar (File, Edit, Window), a toolbar with icons for Rotate, Move, Zoom, Erac, Smiley, Wiggle, Shake, Wiggle Backbone, Help, Restart Game, Send Suggestion, and Save and Exit. A score panel on the right shows the current error score and a list of players.

ERROR: -2405.22

	Score	Rank
TOTAL	-2405.22	
A. REPALHEVY	-2477.69	1
B. ATRAPACIO	-2793.33	2
C. SOLVATION	-57.44	

R NAME	CURRENT	BEST
1 ARIBEN TRUJILLO	95.51	88.33
2 SETH COOPER	OFFLINE	-0.00

RECALL: THIS IS A GREAT THING

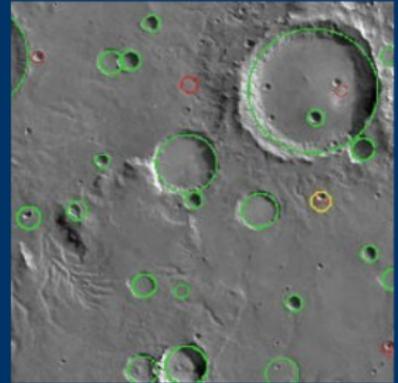
SEND

1 ROTATE 2 MOVE 3 ZOOM 4 ERAC TOOL 5 SMILEY TOOL 6 WIGGLE TOOL 7 SHAKE ALL 8 WIGGLE ALL 9 WIGGLE BACKBONE HELP RESTART GAME SEND SUGGESTION SAVE AND EXIT

Slide courtesy David P. Anderson (davea@ssl.berkeley.edu) Used with Permission

What else is it good for?

- Visual pattern recognition
 - Stardust@home, Clickworkers
 - Africa satellite photos: UNOSAT
 - text/handwriting recognition
 - image tagging (ESP Game, Peek-a-Boom)
- Real-world knowledge
 - <http://openmind.org>
- 3D spatial manipulation
 - Rosetta@play
- Language
 - Distributed proofreading: <http://pgdp.net>



Evangelism

- no more useless games (solitaire, minesweeper, sudoku, etc)
- productive procrastination
 - sometimes people like to think and be challenged
 - sometimes they just like to pass the time
- When wasting time, we're better off doing something useful
 - (at least useful for someone else)

Tell you friends and coworkers!

This Presentation and links at:

<http://nomeans.net/napoleon>

Thank you.