Deciphered secret messages

1. CS UNPLUGGED IS A COLLECTION OF FREE LEARNING ACTIVITIES THAT TEACH COMPUTER SCIENCE THROUGH ENGAGING GAMES AND PUZZLES THAT USE CARDS, STRING, CRAYONS AND LOTS OF RUNNING AROUND. WE ORIGINALLY DEVELOPED THIS SO THAT YOUNG STUDENTS COULD DIVE HEAD-FIRST INTO COMPUTER SCIENCE, EXPERIENCING THE KINDS OF QUESTIONS AND CHALLENGES THAT COMPUTER SCIENTISTS EXPERIENCE, BUT WITHOUT HAVING TO LEARN PROGRAMMING FIRST. THE COLLECTION WAS ORIGINALLY INTENDED AS A RESOURCE FOR OUTREACH AND EXTENSION, BUT WITH THE ADOPTION OF COMPUTING AND COMPUTATIONAL THINKING INTO MANY CLASSROOMS AROUND THE WORLD, IT IS NOW WIDELY USED FOR TEACHING. THE MATERIAL HAS BEEN USED IN MANY CONTEXTS OUTSIDE THE CLASSROOM AS WELL, INCLUDING SCIENCE SHOWS, TALKS FOR SENIOR CITIZENS, AND SPECIAL EVENTS. THANKS TO GENEROUS SPONSORSHIPS WE HAVE BEEN ABLE TO CREATE ASSOCIATED RESOURCES SUCH AS THE VIDEOS, WHICH ARE INTENDED TO HELP TEACHERS SEE HOW THE ACTIVITIES WORK (PLEASE DON'T SHOW THEM TO YOUR CLASSES – LET THEM EXPERIENCE THE ACTIVITIES THEMSELVES!). ALL OF THE ACTIVITIES THAT WE PROVIDE ARE OPEN SOURCE – THEY ARE RELEASED UNDER A CREATIVE COMMONS ATTRIBUTION-SHAREALIKE LICENCE, SO YOU CAN COPY, SHARE AND MODIFY THE MATERIAL. FOR AN EXPLANATION ON THE CONNECTIONS BETWEEN CS UNPLUGGED AND COMPUTATIONAL THINKING SKILLS, SEE OUR COMPUTATIONAL THINKING AND CS UNPLUGGED PAGE. TO VIEW THE TEAM OF CONTRIBUTORS WHO WORK ON THIS PROJECT, SEE OUR PEOPLE PAGE. FOR DETAILS ON HOW TO CONTACT US, SEE OUR CONTACT US PAGE. FOR MORE INFORMATION ABOUT THE PRINCIPLES BEHIND CS UNPLUGGED, SEE OUR PRINCIPLES PAGE

2. BEFORE BILL CLINTON, THE ONLY PRESIDENT TO HAVE BEEN IMPEACHED WAS ANDREW JOHNSON. HE WAS ACQUITTED BY A SINGLE VOTE WHEN A BRAVE SENATOR FROM KANSAS REFUSED TO YIELD FROM PRESSURE TO CONVICT THE PRESIDENT. HAD JOHNSON BEEN CONVICTED, THE SPEAKER OF THE HOUSE WOULD HAVE BECOME PRESIDENT SINCE JOHNSON HAD NO VICE PRESIDENT. INCREDIBLY, IT WAS THIS SAME SPEAKER WHO LED THE IMPEACHMENT IN THE HOUSE OF REPRESENTATIVES. THUS, HAD THE SENATE CONVICTED THE PRESIDENT, THIS WOULD HAVE AMOUNTED TO A POLITICAL COUP.

3. GIVEN A STRATEGY, IT'S OFTEN POSSIBLE TO IMPROVE THE STRATEGY BY MAKING RANDOM CHANGES, TESTING THE RESULT OF THOSE CHANGES, AND KEEPING ONLY THE BETTER OUTCOMES. THIS IS CALLED HILL

CLIMBING. THIS IS RELATIVELY SIMPLE TO CODE, BUT DOESN'T WORK IN EVERY SITUATION - IT CAN OFTEN GET CAUGHT IN A LOCAL MAXIMUM, A STRATEGY THAT IS NOT IDEAL BUT FROM WHICH ANY SINGLE CHANGE IS NOT AN IMPROVEMENT ON ITS OWN. GENETIC ALGORITHMS ARE A POWERFUL TOOL FOR IMPROVING ON THE IDEA OF HILL CLIMBING TO OPTIMIZE A SOLUTION IN SITUATIONS WHERE ALL OF THE FOLLOWING ARE TRUE: A STRATEGY CAN BE PRECISELY QUANTIFIED BY A SPECIFIC SET OF VARIABLES GIVEN CERTAIN NUMERIC VALUES. THE OUTCOME OF THE STRATEGY CAN ALSO BE PRECISELY QUANTIFIED. THERE ARE INTERACTIONS BETWEEN THE VARIABLES THAT MAKE SIMPLE HILL CLIMBING INEFFICIENT OR UNLIKELY TO SUCCEED.

4. THE CORRECT RANKING OF ALL OF THE STAR WARS MOVIES RELEASED SO FAR IS THE EMPIRE STRIKES BACK, A NEW HOPE, THE LAST JEDI, RETURN OF THE JEDI, ROGUE ONE, SOLO, REVENGE OF THE SITH, THE FORCE AWAKENS, RISE OF THE SKYWALKER, THE PHANTOM MENACE, ATTACK OF THE CLONES. THE CORRECT RANKING OF THE THREE INDIANA JONES MOVIES IS THE LAST CRUSADE, RAIDERS OF THE LOST ARK, TEMPLE OF DOOM. THERE IS NO FOURTH INDIANA JONES MOVIE, AND ANYONE WHO TELLS YOU OTHERWISE IS A LIAR. JUST TELL THEM TO TURN AROUND AND WALK AWAY BEFORE THEY CAN BLESS YOU WITH ANY OTHER INCORRECT OPINIONS. ANYWAY, SO SAYETH MY FRIEND BILL, WHO HAPPENED TO BE ONLINE WHILE I WAS MAKING THIS ASSIGNMENT, WHEN I ASKED HIM 'WHAT WOULD BE A GOOD SECRET MESSAGE FOR MY STUDENTS TO DECODE?' PLEASE TAKE UP ANY COMPLAINTS WITH HIM.

5. YOUR FIRST EXAMPLE IS QUITE AN EASY EXAMPLE, I THINK. IT IS EASY BECAUSE THIS SENTENCE USES ALL TEN MOST COMMON WORDS IN ENGLISH: 'I HAVE TO BE A GOOD STUDENT IN THAT CLASS IN THE ROOM OF THAT TEACHER.'

6. FOR A UNIQUE AND SURPRISINGLY HARD CHALLENGE, CONSIDER MAKING A LONG AND FULLY READABLE SERIES OF WORDS NEVER USING A SINGLE EXAMPLE OF OUR WELL-LOVED ENGLISH GLYPH WHICH OCCURS SECOND PLACE IN OVERALL FREQUENCY. IF I AM GENUINE, I WILL SAY MANY, MANY SECONDS HAVE PASSED WHILE I HAVE BEEN HERE PONDERING MAKING SUCH A WORK. DISCOVERING YOU CRACKED MY BRAINCHILD, HERE, IN A SMALLER NUMBER OF SECONDS WOULD GIVE ME NO SURPRISE.

7. AS CRYPTOGRAPHY TASKS GO, YOU MIGHT ACTUALLY CALL THIS A BIT HARD. AS IT TURNS OUT, I CAN GO A LONG WAY WITHOUT USING ANY OF THAT GLYPH THAT TRADITIONALLY FOLLOWS 'D' AT ALL. ISN'T THAT SURPRISING? I FOUND THIS SURPRISING, ANYWAY! AN AUTHOR WHO

ALSO FOUND THIS SURPRISING, LONG AGO, ACTUALLY LOST MANY MONTHS WRITING A BOOK - A FULL FICTIONAL STORY - WITHOUT THAT GLYPH AT ALL. AMAZING, RIGHT?

8. ICALLOURWORLDFLATLANDNOTBECAUSEWECALLITSOBUTTOMAKEITSNATURECLEARERTOYOUMYHAPPYREADERSWHOAREPRIVILEGEDTOLIVEINSPACEIMAGINEAVASTSHEETOFPAPERONWHICHSTRAIGHTLINESTRIANGLESSQUARESPENTAGONSHEXAGONSANDOTHERFIGURESINSTEADOFREMAININGFIXEDINTHEIRPLACESMOVEFREELYABOUTONORINTHESURFACEBUTWITHOUTTHEPOWEROFRISINGABOVEORSINKINGBELOWITVERYMUCHLIKESHADOWSONLYHARDWITHLUMINOUSEDGESANDYOUWILLTHENHAVEAPRETTYCORRECTNOTIONOFMYCOUNTRYANDCOUNTRYMENALASAFEWYEARSAGOISHOULDHAVESAIDMYUNIVERSEBUTNOWMYMINDHASBEENOPENEDTOHIGHERVIEWSOFTHINGS

9. I HAVE ENCODED THIS MESSAGE, AND ENCODED IT WELL, FOR IT CONTAINS THE SECRET OF THE UNIVERSE! NO REALLY, IT DOES! YOU DON'T BELIEVE ME? WHY WOULD YOU NOT BELIEVE THAT THIS PERFECTLY CROMULENT SECRET TEXT CONTAINS THE BE ALL, END ALL, GRANDEST SECRET OF ALL THE COSMOS? NOW I FEEL DISRESPECTED! HAVE YOU DISCOVERED YOUR OWN BETTER ULTIMATE TRUTH OF EVERYTHING? I DIDN'T THINK SO. SO WHY ARE YOU GETTING ALL UPPITY AT ME? HONESTLY. NO ONE HAS ANY MANNERS THESE DAYS. ...WHAT'S THAT? YOU WANT ME TO TELL YOU THE SECRET? NOT AFTER THIS KIND OF DISRESPECT! GOODNESS GRACIOUS ME. BACK WHEN I WAS A YOUTH I WAS NOT SO CALLOUS. WHEN SOMEONE WELL RESPECTED AND IMPORTANT TOLD ME THAT THEY HAD SOMETHING WORTH TELLING ME, I JUST LISTENED! I DIDN'T DOUBT THEM! SO RUDE, HONESTLY. JUST UNACCEPTABLE.