# Who am I?

- David Thomsen
- @lotographia on Twitter
- Studied CompSci at Vic Uni 2015-2016
- Currently employed at Spotlight Reporting in Petone
- General lover of puzzles and puzzle games
- Creator of a website called Lotographia



#### 1980s Whanganui Kid Starter Pack





















Then in mid to late 2010s...



# My original idea...





My idea slowly evolving...





# Inspiration from Puzzled Pint!



#### **Inspiration from Puzzled Pint!**



1. There are four types of ornaments: Stars  $\checkmark$ , Circles  $\bigcirc$ , Diamonds  $\diamondsuit$ , and Canes **7**. Of each, there are exactly 5 Stars, 4 Circles, 6 Diamonds, and 5 Canes to be placed on this tree.

Ornaments are placed at spots , and a spot is connected to another spot if there is a line \_\_\_\_\_\_ running between them.

Additionally, there are two other kinds of decoration:

2. Garlands always connect two of the same type of ornament. Conversely, any ornament which is connected to another ornament of the same type MUST be connected by a garland.

3. Lights 2 are always connected to a Circle at one or the other end.

#### Inspiration from Cracking The Cryptic



# Inspiration from Cracking The Cryptic



# **Tovelund Puzzles**

(Faux-Scandinavian name combining the name "Tove" and the town "Billund")

# Pros/Cons compare with Sudoku & Sudoku variants

- Filling in all 81 squares can be a chore sometimes
- Can create 'stories' behind the rules
- Graphics!
- Combine constraint types in creative ways

- Space constraint, difficult even to make an 81 square puzzle
- Difficult to validate that there's only one solution
- Does not (currently) support mathematical logic
- Puzzles take longer to design than classic Sudoku and variants, even with an improved puzzle creation tool



# Tovelund Puzzles Puzzle Designer 😅







• Create a collection of numbers: [1, 2, 3, 4, 5, 6, 7, 8, 9]

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  - Each square contains a unique number
- Put in some starting numbers



**Skyscraper Variation Concept** 



# Future goals

- Fix puzzle design for desktop
- Improve the puzzle designer
  - Design
  - Add drag & drop
- Improve the code base 😅
- Allow other people to design and share puzzles
- Add new features & options (for example D&D rather than Cities)
  - (Add 'story mode' collections of puzzles???)
- Promote somehow?