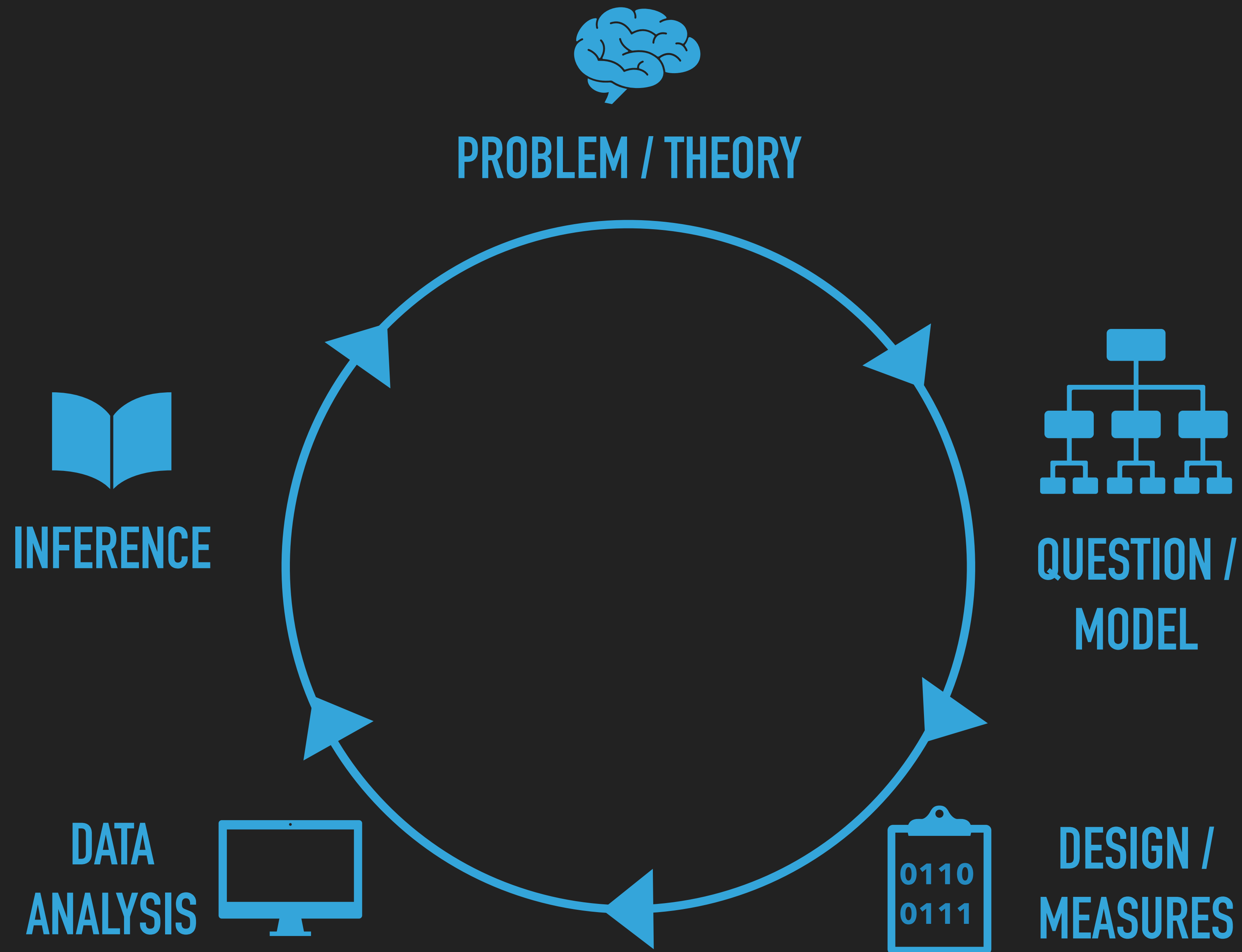
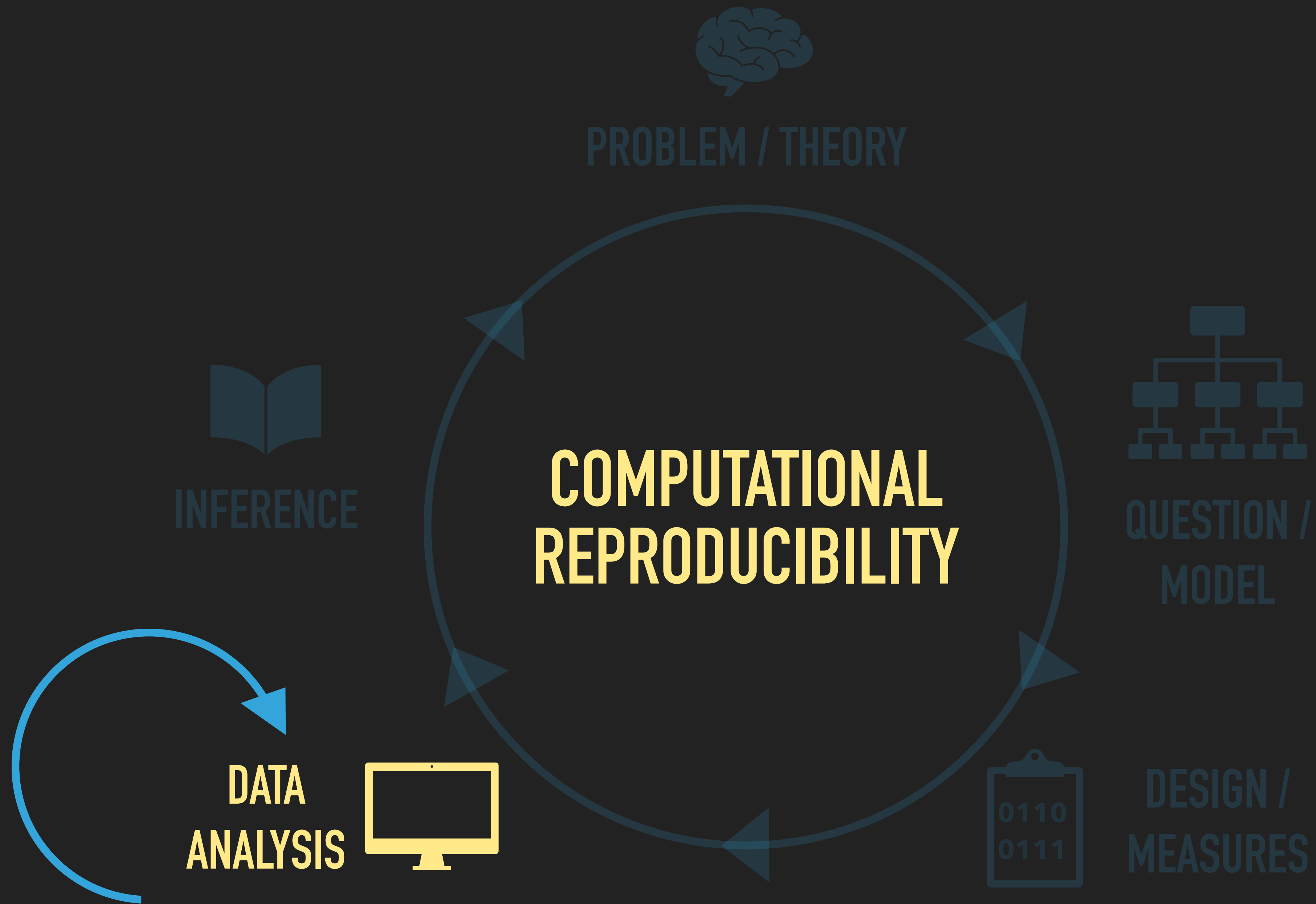


SARAS WINDECKER @SMWINDECKER

**GOLD STAR REPRODUCIBILITY:
STRAIGHTFORWARD CONTAINERISATION**





**THE FIRST PERSON THAT WILL
RERUN YOUR ANALYSIS IS YOU.**

ULTIMATELY, REPRODUCIBLE CODE HAS:
FEWER MISTAKES & LESS DUPLICATION

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IS:
MORE INTERPRETABLE & EASILY SHARED

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FEWER MISTAKES & LESS DUPLICATION

IS:
MORE INTERPRETABLE & EASILY SHARED

AND SUPPORTS:
MORE RELIABLE AND ROBUST SCIENCE

NULLIUS IN VERBA

TAKE NOBODY'S WORD FOR IT.

IRREPRODUCIBLE RESULTS... WHY?

1. PUBLICATION BIAS

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2. QUESTIONABLE RESEARCH PRACTICES
IN 'PUBLISH OR PERISH' CULTURE

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IRREPRODUCIBLE RESULTS... WHY?

1. PUBLICATION BIAS
2. QUESTIONABLE RESEARCH PRACTICES
IN 'PUBLISH OR PERISH' CULTURE
3. INADEQUATE DATA REPORTING
4. INSUFFICIENT INCENTIVES FOR
SHARING CODE & DATA

ORGANISATION

SEPARATE DATA AND CODE

DOCUMENTATION

SPECIFY DEPENDENCIES

AUTOMATION

MASTER SCRIPT

DISSEMINATION

SHARE!

COMPENDIUM:

- ▶ A CONTAINER FOR THE DIFFERENT ELEMENTS THAT MAKE UP A DOCUMENT,
- ▶ AS A MEANS FOR DISTRIBUTING, MANAGING AND UPDATING THE COLLECTION
- ▶ GENTLEMAN, R. AND TEMPLE LANG, D. (2004)

AN EXAMPLE INVOLVING A LONG ANALYSIS OF PLANT DECAY.



MORE THAN A YEAR LATER...



SIX MONTHS (AND AN R UPDATE) LATER...



#Laff

**WHY WOULDN'T WELL-WRITTEN,
WELL-ORGANISED CODE REPRODUCE?**

BARRIERS TO REPRODUCING CODE

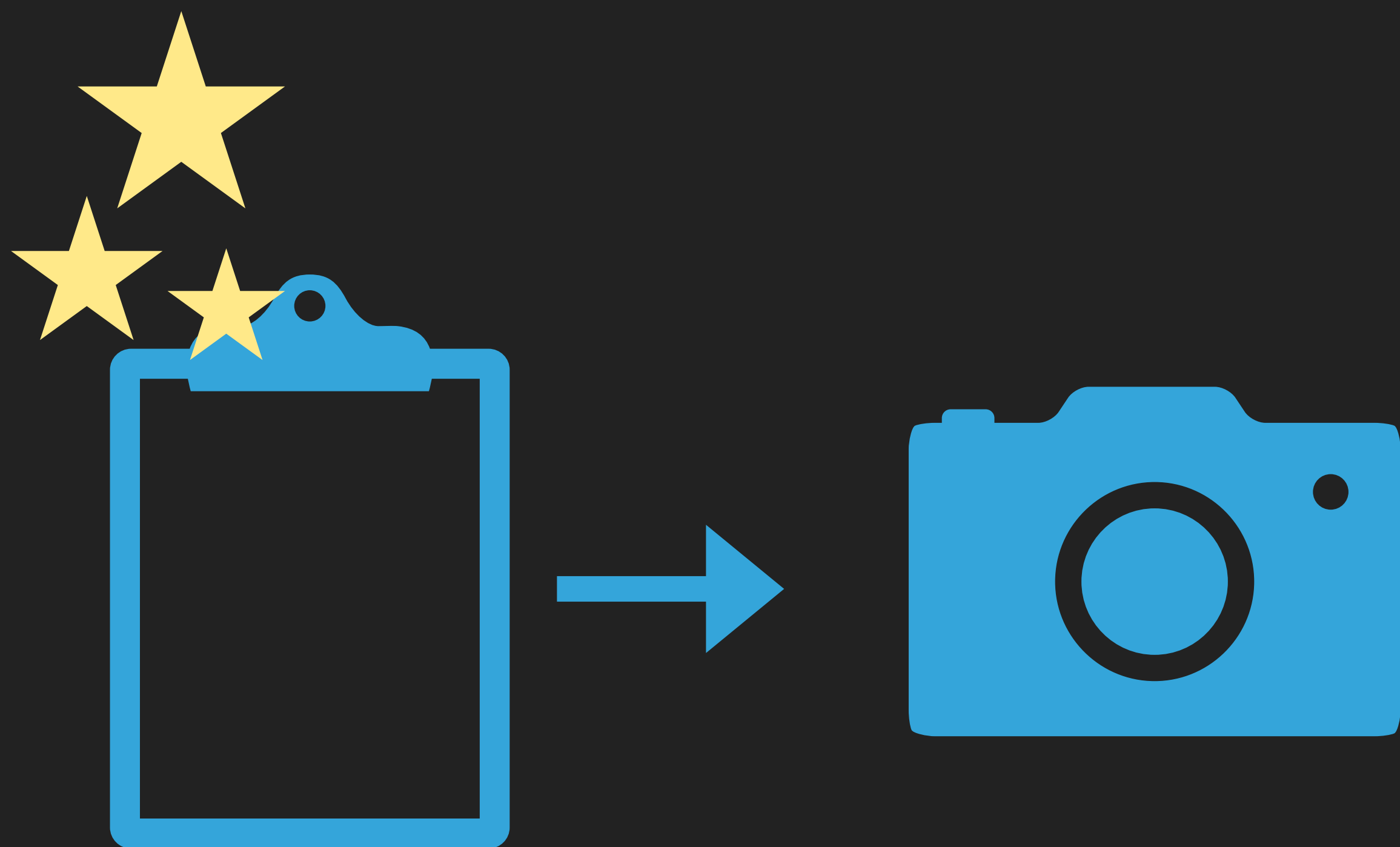
1. SOFTWARE VERSIONS
2. R VERSION
3. OPERATING SYSTEMS
4. ETC.

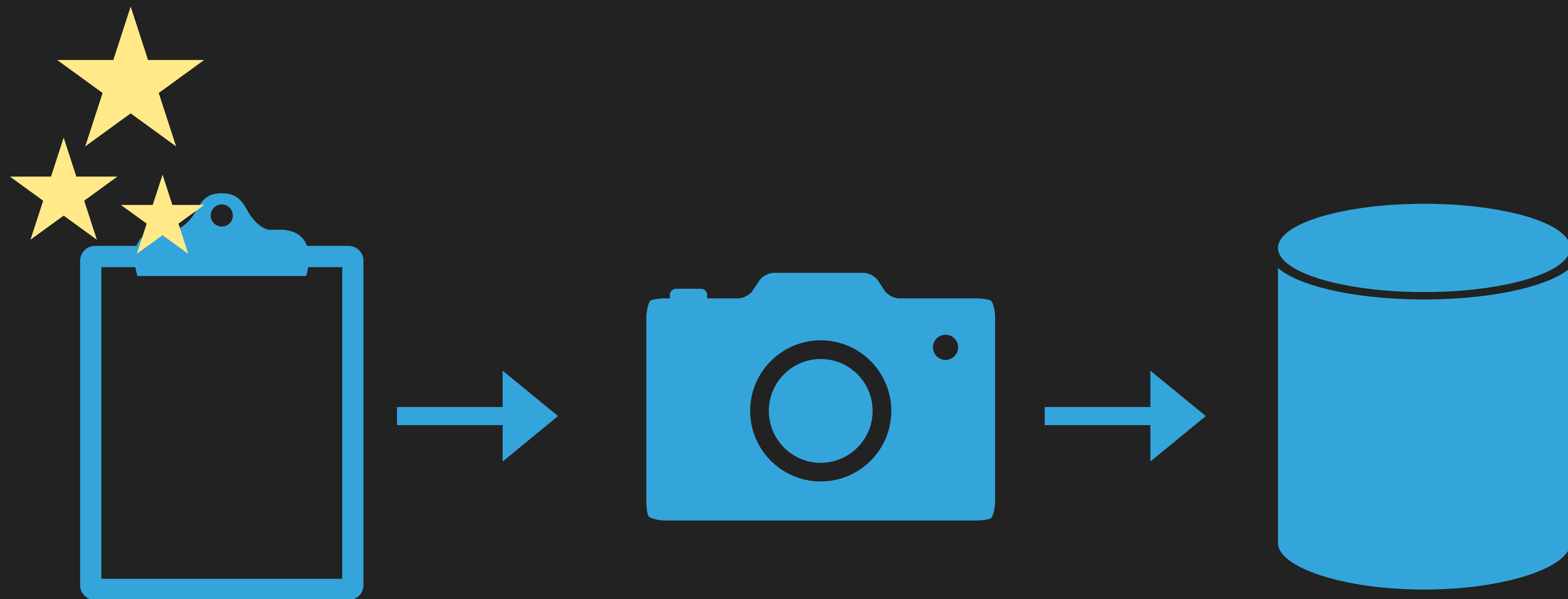
CONTAINERISATION TO THE RESCUE!

CONTAINERISATION TO THE RESCUE!

1. A TYPE OF VIRTUALISATION
2. MORE LIGHTWEIGHT THAN A VIRTUAL MACHINE
3. POPULARLY IMPLEMENTED WITH DOCKER







**IF DOCKER ALREADY EXISTS,
WHAT'S THE PROBLEM?**

PROBLEM

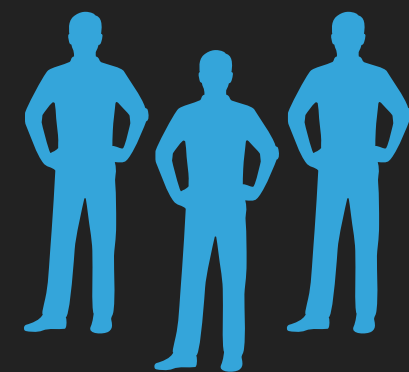


**LEARNING CURVE FOR DOCKER
IS HIGH**

PROBLEM



**LEARNING CURVE FOR DOCKER
IS HIGH**



**LEARNING CURVE FOR DOCKER
IS HIGH**

SOLUTION? AN R PACKAGE OF COURSE.

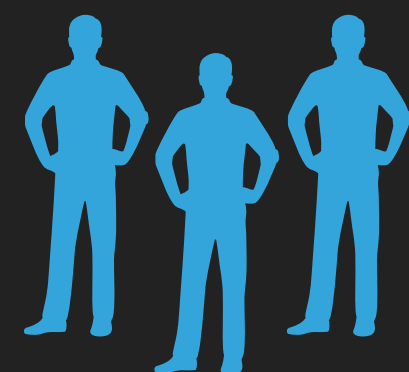


**AUTOMATICALLY PREPARE A
DOCKERFILE**

SOLUTION? AN R PACKAGE OF COURSE.



**AUTOMATICALLY PREPARE A
DOCKERFILE**



**LAUNCH CONTAINER WITHOUT
ANY INSTALLATION**

HOLEPUNCH R PACKAGE BY KARTHIK RAM.

THANK YOU!

KARTHIK RAM FOR HOLEPUNCH
RLADIES MONTPELLIER

SM.WINDECKER@UNIMELB.EDU.AU
@SMWINDECKER

