#### The Creative Process The 3-S Model



# Recap

- History of Creativity
- Contribution of Guilford, Maslow, Mihaly
- Defining Creativity (Making something Novel and Useful)
- Types of creativity



# Poll

A software engineer working on building a new operating system as a "hobby"

- a. Mini C
- b. Pro C
- c. Big C



# Poll

• A man makes Math tutorials to help his school going cousin using a doodle software

- a. Small c
- b. Mini c
- c. Pro C



#### The Path to Big C....





Linus Torvalds

Sal Khan



From: torvalds@klaava.Helsinki.FI (Linus Benedict Torvalds) Newsgroups: comp.os.minix Subject: What would you like to see most in minix? Summary: small poll for my new operating system Message-ID: Date: 25 Aug 91 20:57:08 GMT Organization: University of Helsinki

Hello everybody out there using minix -

I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386(486) AT clones. This has been brewing since april, and is starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-system (due to practical reasons) among other things).

I've currently ported bash(1.08) and gcc(1.40), and things seem to work. This implies that I'll get something practical within a few months, and I'd like to know what features most people would want. Any suggestions are welcome, but I won't promise I'll implement them :-)

Linus (torvalds@kruuna.helsinki.fi)

PS. Yes - it's free of any minix code, and it has a multi-threaded fs. It is NOT protable (uses 386 task switching etc), and it probably never will support anything other than AT-harddisks, as that's all I have :-(.



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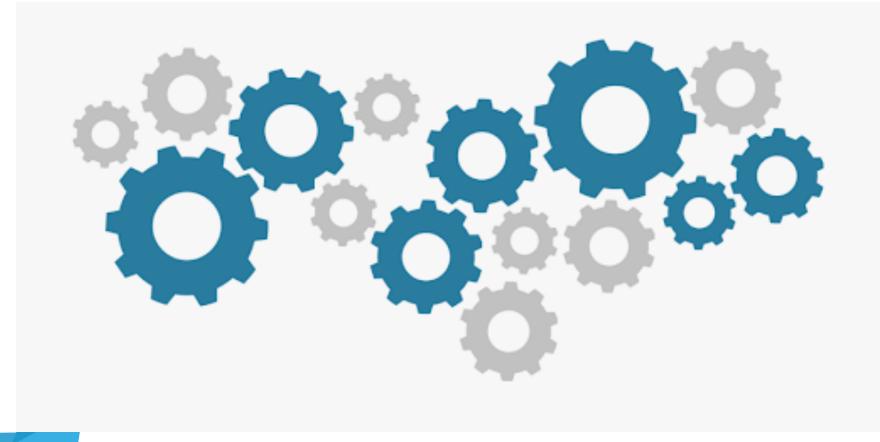
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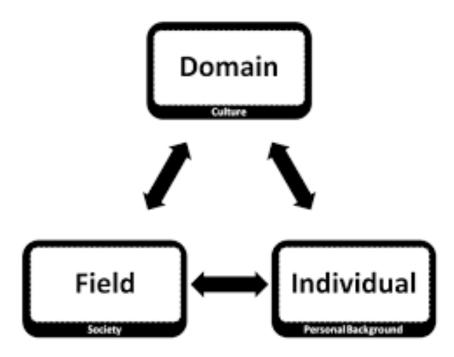


#### Is there a process?



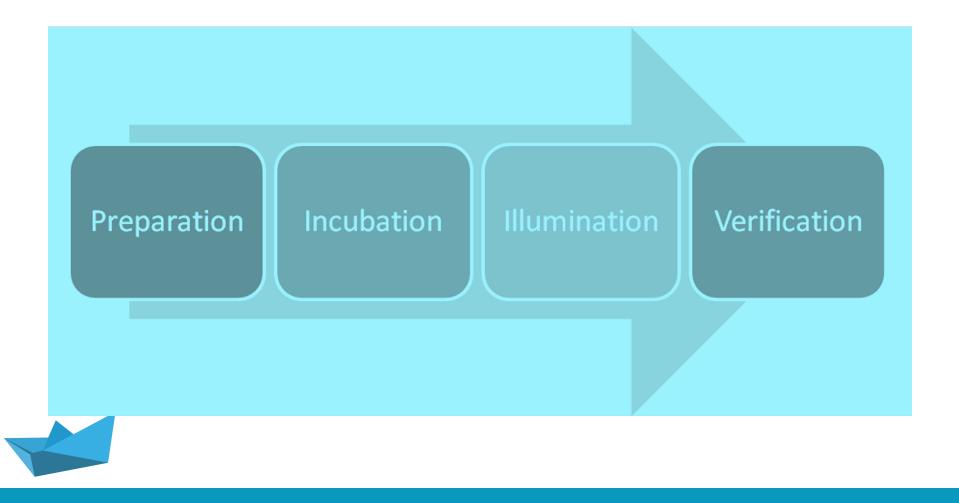


#### The System's Model





# The Classic Four-Stage Model of the Creative Process (Graham Wallas)



#### Preparation

Define Problem
Identify flaws/ gaps
Set Parameters
Research/ Gather Information
Conscious Effort

#### Incubation

- No Active Thinking
- Taking a Break
- Sub Conscious
- Trains of Association
- Few minutes to few years!

2.

## Illumination

Discovery or Breakthrough
The Aha Moment
Subconscious
Sudden and short lived

3.

#### Verification

# Compare results to Criteria Revise/ Refine Conscious and Deliberate

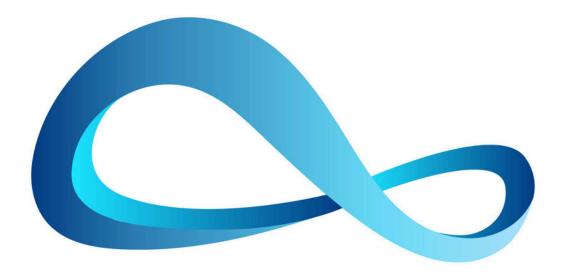
5. & 6.



## **Production & Evaluation**

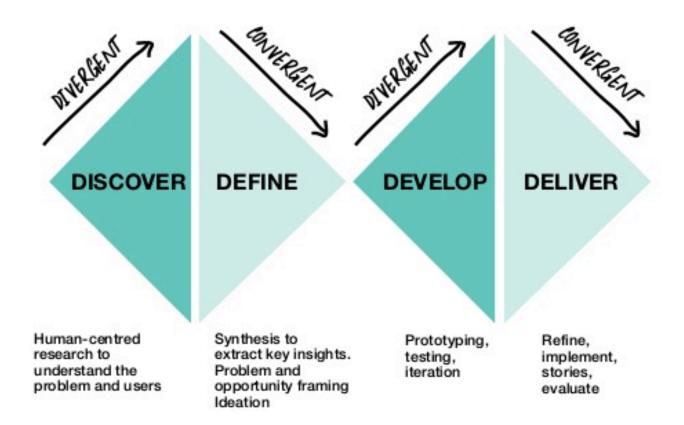
Commercialization
Feedback
Conscious and Deliberate

#### The Creative Process





#### Some Alternate Models

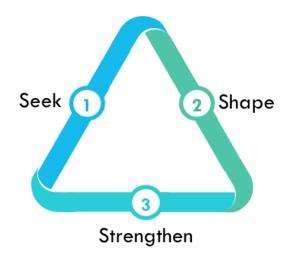




#### **Design Thinking**

#### The 3-S model

# A unique framework for personal creativity using techniques employed by artists





## 5 art domains – 15 Techniques

#### Learning creativity from...

- Photography
- Music
- Drawing
- Writing
- Science





#### Seek- An Artist's Mindset

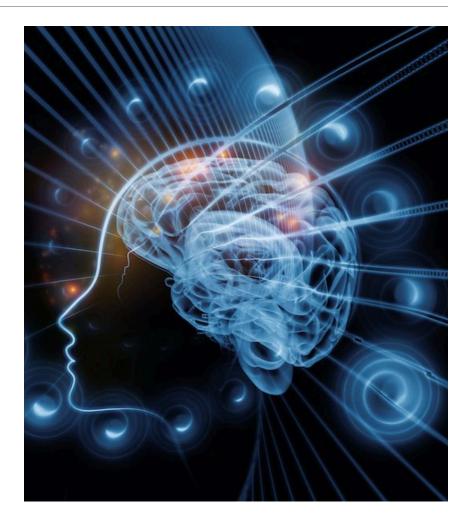
66

All true art is literally a mirror of the artist's mind

**"** 



- Mindful observation
- Visualization
- Empathy
- Perspective
- Curiosity





## Strenghten- Creative Skills



Very many people go through their whole lives having no real sense of what their talents may be, or if they have any to speak of

The gardener does not make a plant grow. The job of a gardener is to create optimal conditions



Sir Ken Robinson

- Creative excellence
- Copying to learn, copying to create
- Whole Brained Creativity





## Shape – Your Creation

**66** To be creative you actually have to do

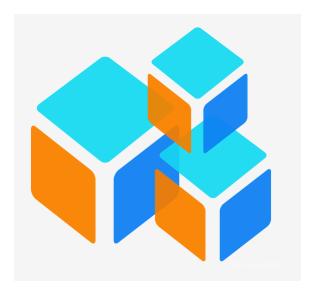
something.

**?**?

 $\sim$  Sir Ken Robinson



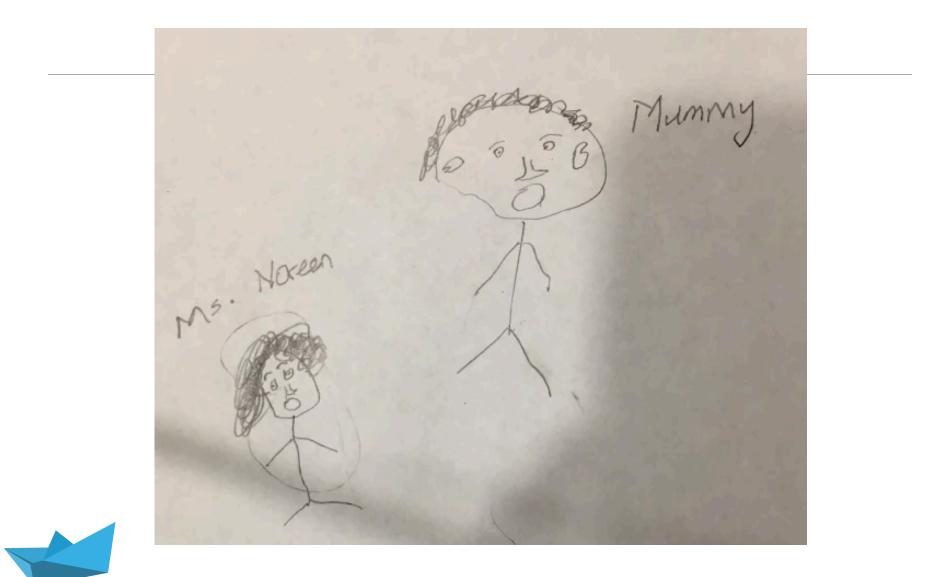
- Stream of Consciousness
- Combining and Recombining
- Scope and constraints
- Collaborating
- Building upon work of others
- Adding a twist
- Overcoming creative blocks



#### Exercise

• Draw a leader

















I think a leader means someone is doing the right thing even if now one is watching and stepping up to tell someone if there not doing the right think to do. That is what I think a leader is and what they do at all times. I think captin America is a leader because he does whate it takes to help others and help him self even when he doesn't have 10. Tyler Sotsky





#### Food for thought

How and why is the creatitve expression of children different from adults?

