

BEYOND THE ARTIFACT:



POWER

AS A LENS
FOR

Creativity, Support
Tools



JINGYI LI, ERIC RAWN, JACOB RITCHIE,
JASPER TRAN O'LEARY, SEAN FOLLMER

UIST 2023



WHEN WE SEE A CREATIVITY SUPPORT TOOL (CST),
WE SHOULD SEE A POWER RELATIONSHIP.

TOOLS MEDIATE THE
POWER TO

AN ABILITY TO DO
SOMETHING

(Ardent, 1958)



ACCOMPLISH MANY CREATIVE TASKS.

SOFTWARE CONSTRAINTS, ABSTRACTIONS, &
REPRESENTATIONS STRUCTURE HOW USERS
INTERACT WITH AND THINK ABOUT TOOLS.



THIS *empowers* TOOL USERS,
BUT IS ALSO A WAY CST DESIGNERS &
RESEARCHERS HAVE

**POWER
OVER** THEM.

RELATIONSHIPS BETWEEN
ACTORS

(Dahl, 1957)



UNDERSTANDING

THE POWER DYNAMICS PRESENT IN CSTs
CAN HELP US ...

ask more
meaningful
research as



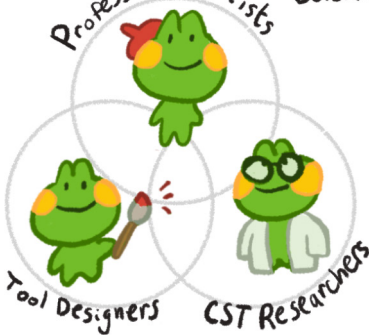
build systems
towards
mitigating
power imbalances



methods

WE INTERVIEWED 11 CREATIVE PRACTITIONERS
FOR PRELIMINARY

Professional Artists THEORY BUILDING



E.G., WHAT DOES EMPOWERMENT MEAN
IN THE CONTEXT OF CSTs?

"TOOLS FADING INTO THE BACKGROUND"

"REMOVING AS MANY OBSTACLES AS POSSIBLE"

"DRAWING TO DELIBERATELY SEE AND REFLECT ON OBJECTS"

"DIRECTING AN AUDIENCE'S GAZE, AUTHENTICALLY CAPTURING MY WORLDVIEW"

ALIGNS WITH THE CURRENT HCI CONVERSATION

LESS SUPPORTED BY PURELY TECHNICAL CONTRIBUTIONS

TECHNICAL

INSTEAD OF BEING PRESCRIBED A LEVEL OF ABSTRACTION, CREATIVE PRACTITIONERS NEED

||| VERTICAL MOVEMENT |||

ALONG THE LADDER OF ABSTRACTION.

EX: LETTERING IN ILLUSTRATOR

• HIGH LEVEL
CHOOSE
A NEW
FONT

FOR ARTISTS WHOSE PRACTICES ARE DEFINED BY CREATING UNIQUE, THOUGHT PROVOKING WORK THAT STRETCHES THE LIMITS OF THEIR MEDIUM, HAVING THE POWER TO APPROPRIATE TOOLS IS ESSENTIAL.

• MID LEVEL
EDIT KERNING
IN GUI

• LOW LEVEL
EDIT VECTOR
VERTICES



"THE INTERESTING THINGS ARE DOING WHAT TOOLS ARE NOT DESIGNED FOR."

ONE WAY CST DEVELOPERS/RESEARCHERS EXERT **POWER OVER** CREATIVE PRACTITIONERS WHO USE THEIR TOOLS IS WHEN PRACTITIONERS CAN'T PICK THEIR OWN ABSTRACTIONS.

RECOMMENDATIONS



WHEN ARTISTS STRUGGLE WITH PICKING THE RIGHT LEVEL OF ABSTRACTION FOR THEIR TASK, THEY MOVE ≡ HORIZONTALLY ≡ TO NEW TOOLS.

THUS, WE ADVOCATE FOR DESIGNING




EDIT FONT PIXELS WITH PHOTOSHOP



COMPOSABLE BUILDING BLOCKS INSTEAD OF END TO END SYSTEMS,

SO CREATIVE PRACTITIONERS CAN HAVE THE POWER TO CREATE THEIR OWN CONSTRAINTS + ABSTRACTIONS.

OR, BUILDING PLUG-INS  INSTEAD OF BRAND NEW TOOLS TO ANSWER RESEARCH QUESTIONS, AS PLUG-INS COULD MITIGATE POWER OVER DYNAMICS OF A NEW *normative ground... →*

"So at some point along the way, rules-as-constraining pass over into rules-as-enabling, even if it's impossible to say exactly where. **Freedom**, then, really is the tension of the free play of **human creativity** against the rules it is constantly generating."

-David Graeber, *The Utopia of Rules*

NORMATIVE GROUND

Q: WHAT IS **NORMATIVE GROUND**?

A: THE WAY A TOOL STRUCTURES ITS PRACTITIONERS' IDEAS, GOALS, AND INTENTIONS, SHAPING HOW THEY THINK, ACT, & EXPRESS THEMSELVES. EG...

MENTAL MODELS
DOCUMENTATION
AVAILABLE FEATURES
ONLINE COMMUNITIES
VIDEO TUTORIALS
LICENSING MODELS
CULTURAL NORMS

★ BUILDING A NEW TOOL = ENACTING A NEW
NORMATIVE GROUND ★

BY DICTATING WHAT SHOULD BE MADE "EASIER", CST RESEARCHERS EXERT **POWER** OVER CREATIVE PRACTITIONERS WHO TRY TO MAKE SENSE OF THIS NEW NORMATIVE GROUND, EVEN THOUGH THEY INCREASE THEIR **POWER** TO ACCOMPLISH AN "EASIER" TASK.


YET...

CREATIVE PRACTICE IS AN OPPORTUNITY TO TROUBLE POWER DYNAMICS BY PROPOSING A NEW NORMATIVE GROUND THROUGH ARTMAKING!

TOWARDS "ARTISTIC SUPPORT TOOLS"

SO WHERE DO WE GO FROM HERE?

WELL, ONE OBVIOUS THING IS TO INVEST IN THE COMMUNITIES OUR TOOLS ARE MEANT TO SERVE, RELEASE & MAINTAIN THEM, AVOID THE PAPER TREADMILL...

BUT WE'RE ALL UNDER THE OPPRESSIVE →  FORCES OF ACADEMIA! SO, WHY NOT...

- VIEW CSTS AS **PROBES** TO STUDY CREATIVITY AND ARTMAKING, RATHER THAN PROTOTYPES FOR "EFFECTIVE" DESIGN PRINCIPLES
- GO **BEYOND THE ARTIFACT** AND RECOGNIZE HOW TOOLS CAN INFLUENCE LARGER CREATIVE SITUATIONS, BEYOND FUNCTIONALITY & USABILITY
- BUILD **APPROPRIABLE** TOOLS AND **COMPOSABLE** PRIMITIVES, AND STUDY HOW THEY'RE BEING USED/MISUSED
- VALUE CASES WHERE TOOLS **FAIL** - THEY MIGHT TEACH US MORE THAN WHEN TOOLS WORK!
- WHAT IF BUILDING CSTS WAS AN **ARTISTIC PRACTICE** ITSELF? (META!) TOOLS CAN ALSO MAKE NORMATIVE CLAIMS & QUESTION POWER RELATIONS!

Let's do it together!






SO NOW YOU KNOW...
LET'S MOVE BEYOND ARTIFACT
CREATION & TAKE CREATIVE
PRACTICES - AND CREATIVE
PRACTITIONERS - SERIOUSLY!



PAPER PDF



 DOI.ORG/10.1145/3586183.3606831

QUESTIONS? DISAGREEMENTS?

I'M FRIENDLY! ☺



JINGHILI@CS.STANFORD



JINGYITWEETS

(RIP)