

TEDx Hull

x = independently organized TED event

Alex McLean

Algorave: algorithmic dance culture

 @tedxhull

From Where I Stand

WHAT IS AN ALGORAVE?

People making code, live
that makes music + visuals
that people dance to

FEEDBACK LOOP

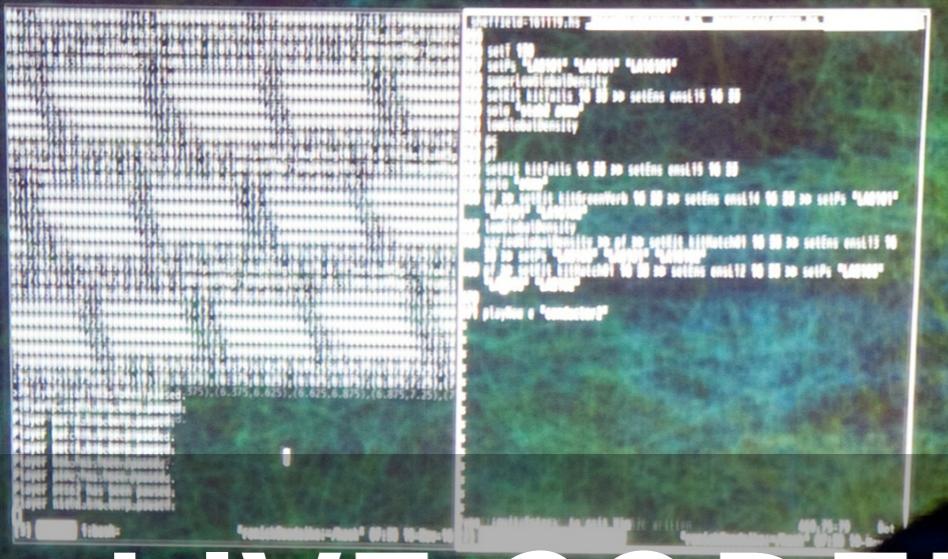
- Musician writing code
- Sound coming out of speakers
- People dancing

LIVE CODING

Temporary Organisation
for the Promotion of
Live Algorithm Programming
(TOPLAP)



Est. 2004



LIVE CODERS ARE NOT DJS

We are not trying to replace DJs

LIVE CODING IS NOT SOFTWARE ENGINEERING

There is no problem to be solved



ALGORAVE = LUDDITE

Stripping back technology

SOME CODE

CUFF PATTERN: 1st – 3rd rnd: (K1, P1) around 4th nd rnd: (P1, K1) around

LEG PATTERN: (8-stitch repeat) 1st – 4th rnd: (K7, P1) around 5th rnd: *K2, yo, sl1, K2tog, pss0, yo, K2, P1* repeat from * around. 6th rnd: (K7, P1) around 7th – 8th rnd: same as 5th & 6th rnds.

CUFF: With A, cast on 64 sts (21/21/22). Join. Work Cuff Pattern for 2" ending rnd. 3. Cut A.

LEG: With B, begin Leg Pattern, repeating until work measures 5" (or desired length), ending with rnd 8. Cut B

Slip first 31 sts. onto needle 1, leave remaining 33 (instep) st. onto spare needle. Instep should start and end with a P. stitch.

HEEL: (worked over 31 sts.) With A: 1st row: (sl.1, K1) across, end K.1. 2nd row: Sl. 1, P to end. Repeat these 2 rows until 32 rows completed in total, ending with right side facing.

SHAPE HEEL: 1st row: K 17, ssk, K1, Turn 2nd row: Sl.1, P5, P2tog, P1, Turn 3rd row: Sl.1, K6, ssk, K1, Turn 4th row: Sl.1, P7, P2 tog, P1, Turn 5th row: Sl. 1, K8, ssk, K1, Turn 6th row: Sl.1, P9, P2 tog, P1, Turn

Continue working in this manner until all stitches have been worked ending with a P row. (17sts) Cut A.

GUSSETTS: With B: 1st needle: K17 heel st., Pick up and knit 16 sts along side of heel. 2nd needle: continue 33 instep sts in pattern as established. 3rd needle: Pick up and knit 16 sts along side of heel. K9 heel st. (24/33/25)

Beginning rnd at center of heel: 1st rnd: 1st needle: K to last 3 sts. K2tog, K1. 2nd needle: work pattern 3rd needle: K1, ssk, K to end. 2nd rnd: 1st needle: Knit 2nd needle: work pattern 3rd needle: Knit Repeat these 2 rnds, keeping continuity of pattern on 2nd needle of 33 instep stitches until 64 sts remain. (15/33/16)

FOOT: Continue even on these 64 sts. Knitting 1st and 3rd needles and continuing pattern on 2nd needle until foot measures 2" less than desired length of foot. Cut B.

Slip 1st st. of needle 2 onto needle 1. (16,32,16)

TOE: With A: 1st rnd: 1st needle: K to last 3 sts. K2 tog, K1 2nd needle: K1, ssk, K to last 3 sts. K2 tog, K1 3rd needle: K1, ssk, K to end. 2nd rnd: Knit Repeat these 2 rnds until 20 sts. remain (5/10/5)

SOME CODE

CUFF PATTERN: 1st – 3rd rnd: (K1, P1) around 4th nd rnd: (P1, K1) around

LEG PATTERN: (8-stitch repeat) 1st – 4th rnd: (K7, P1) around 5th rnd: *K2, yo, sl1, K2tog, pss0, yo, K2, P1* repeat from * around. 6th rnd: (K7, P1) around 7th – 8th rnd: same as 5th & 6th rnds.

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Continue working in this manner until all stitches have been worked ending with a P row. (17sts) Cut A.

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FOOT: Continue even on these 64 sts. Knitting 1st and 3rd needles and continuing pattern on 2nd needle until foot measures 2" less than desired length of foot. Cut B.

Slip 1st st. of needle 2 onto needle 1. (16,32,16)

TOE: With A: 1st rnd: 1st needle: K to last 3 sts. K2 tog, K1 2nd needle: K1, ssk, K to last 3 sts. K2 tog, K1 3rd needle: K1, ssk, K to end. 2nd rnd: Knit Repeat these 2 rnds until 20 sts. remain (5/10/5)

EMBODIED PATTERNS

```
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timespanMap = fr  
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),(2.111111111111107,2.388888888888884),(2.388888888888884,2.666666666666666  
),(2.666666666666666,3.083333333333326),(3.083333333333326,3.499999999999999)]  
])]  
Conductor conductor2 was bored, so it did something.  
>variedGlobalDensity  
>>Player stab1 has been paused.  
Player stab2 has been paused.  
longMidDensity  
>>Player hat has been paused.  
Player stab1 has been paused.  
longMidDensity  
480.1 Bot  
Typéen: àoëit<Ebëéne #04@xit Vémonds ago  
[3] 1:bash- [2] "renick@odakiko:~/haskell" 07:46 19-Nov-16  
[3] 1:bash- [2] "renick@odakiko:~/haskell" 07:46 19-Nov-16
```

Algorithmic dance culture



Pattern in music

- repetition
- symmetry
- interference
- deviation



tidalcycles

Live coding environment

tidalcycles.org / @tidalcycles

TIDAL CYCLES

1

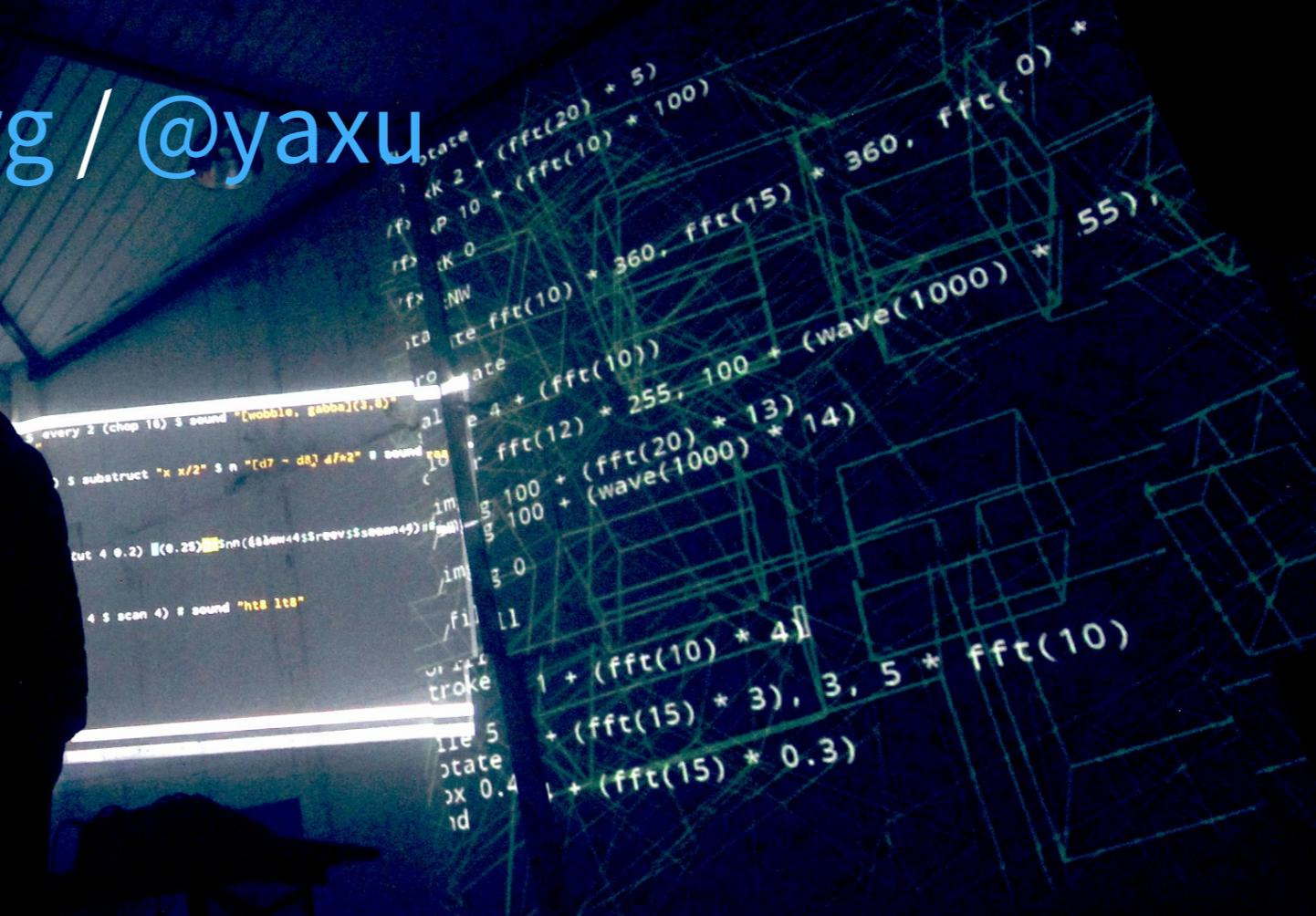
TIDAL CYCLES

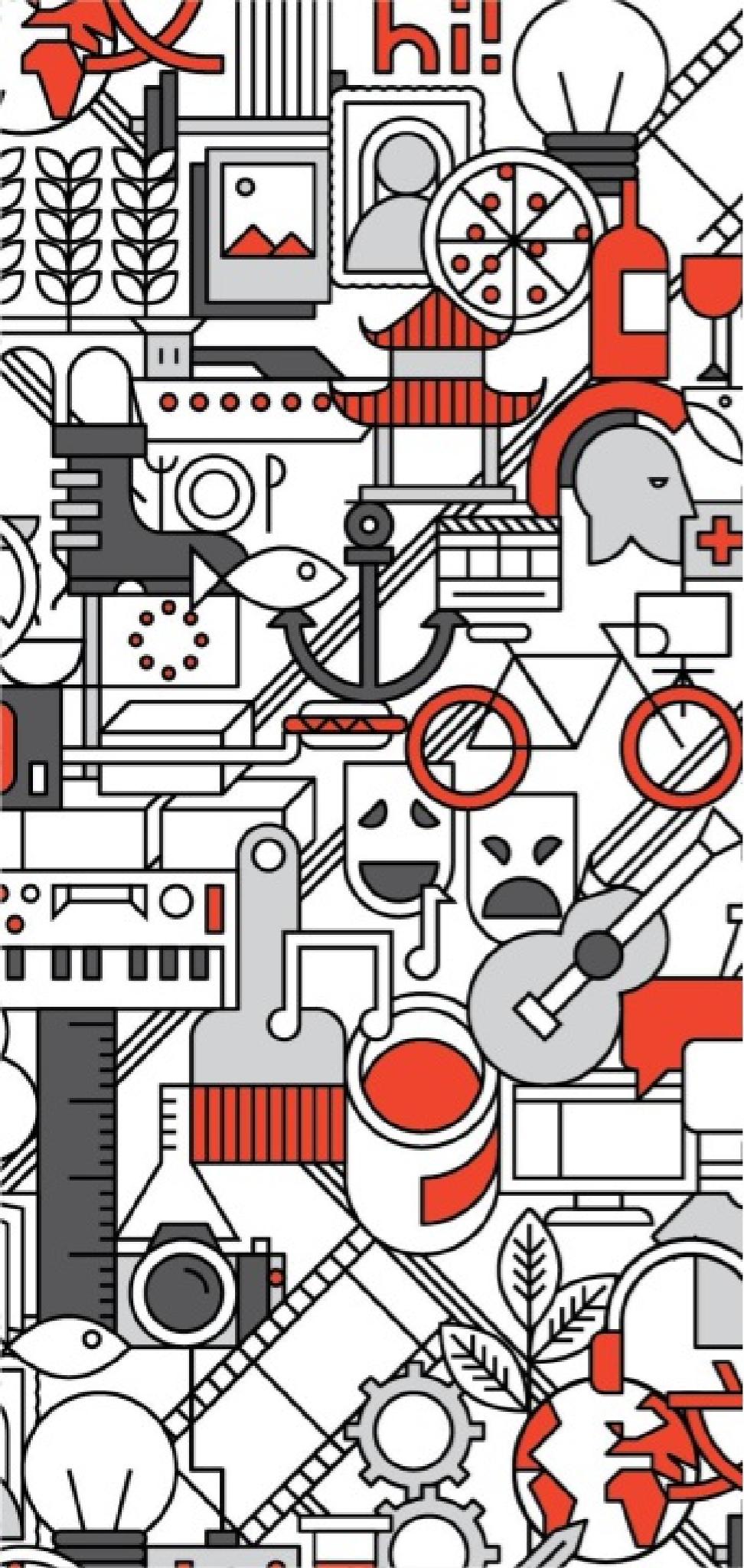
1

LOST IN KAIROS

THANKS FOR LISTENING!

slab.org / @yaxu





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x = independently organized TED event

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@tedxhull