

# Level Design Case Studies: Cut the Rope

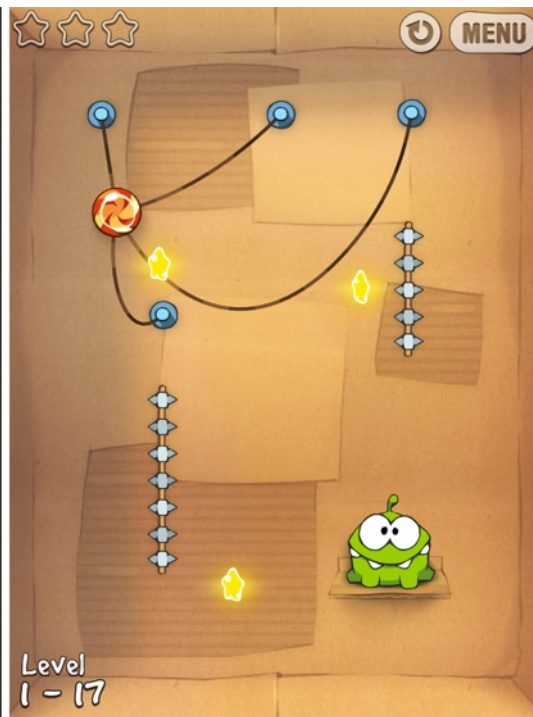
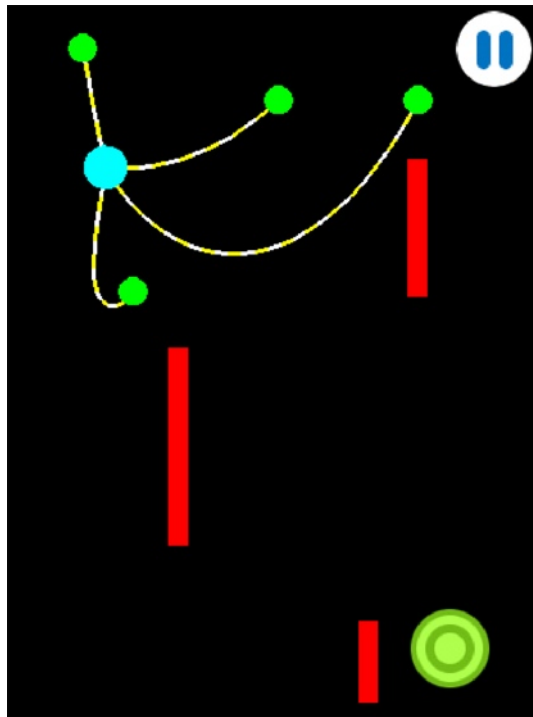
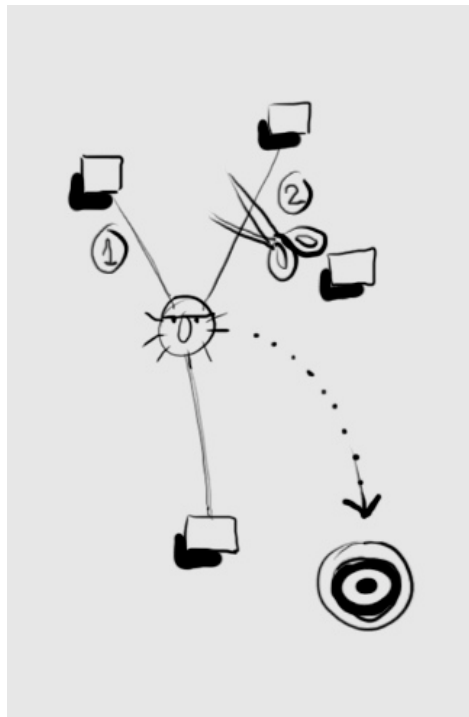
**Semyon Voinov**  
ZeptoLab

# What is Cut the Rope?

- Initially released on October 5th 2010 in Apple App Store
- Average game session length: 3 min
- Average user rating in App Store: 4.86/5
- Over 100m downloads (free&paid combined)
- Om Nom eats an average of 24 million candies per day



# The gameplay



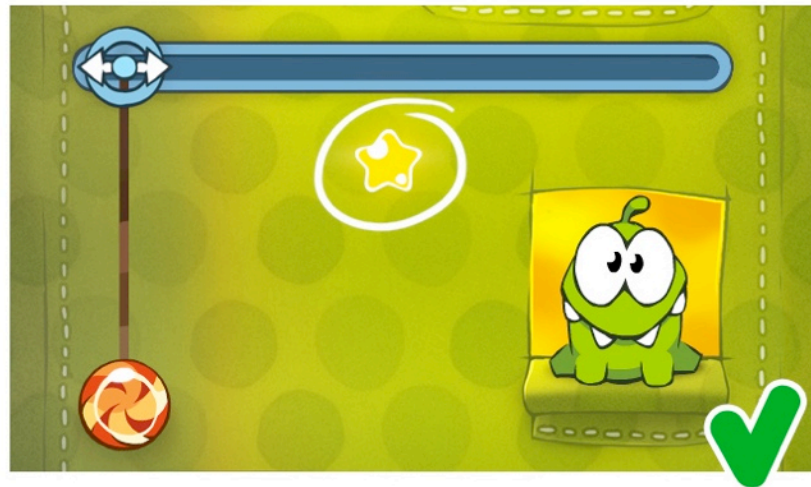
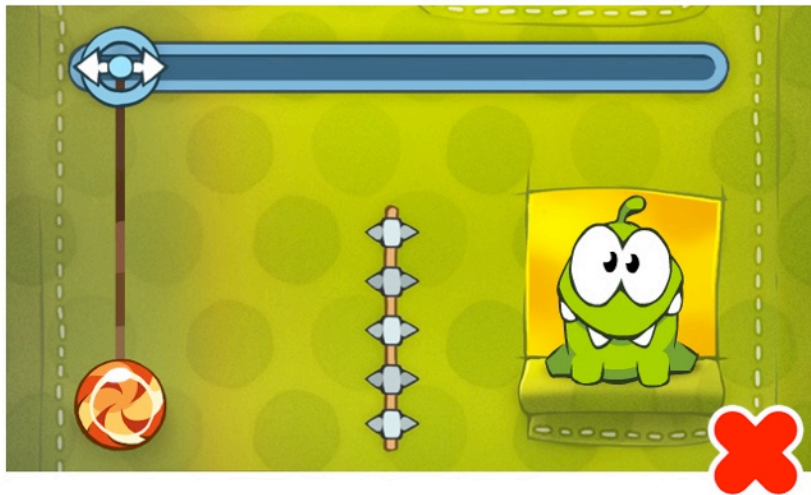
# The goals in level design

- Make player feel smart
- Appeal both to casual and advanced players
- Keep players hungry for more



# Our principles in level design

## 1. Positive reinforcement



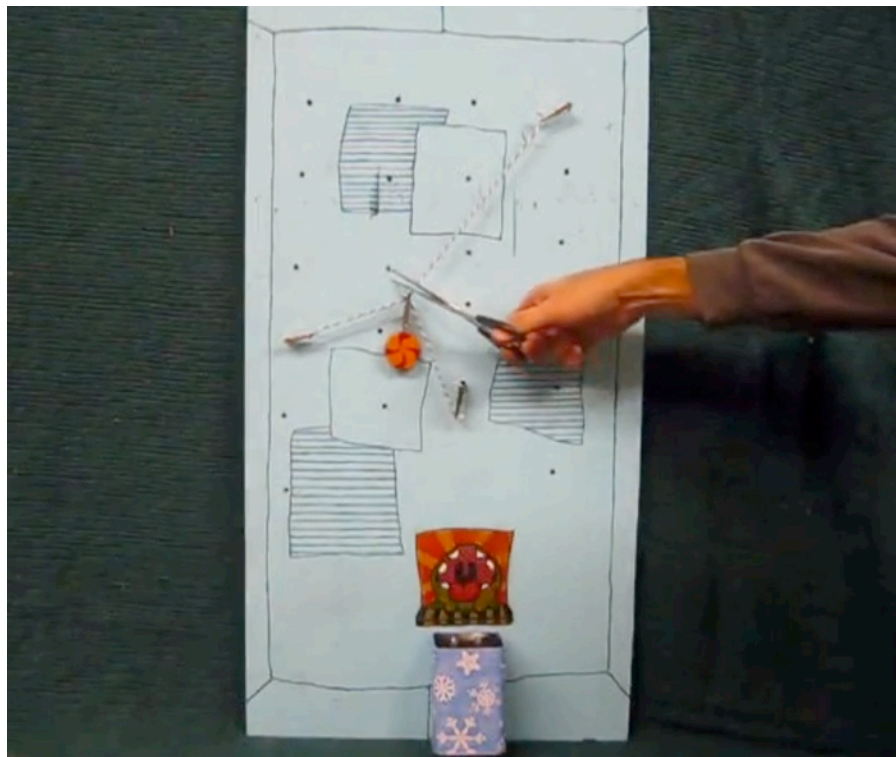
# Our principles in level design

## 2. Self-manageable difficulty



# Our principles in level design

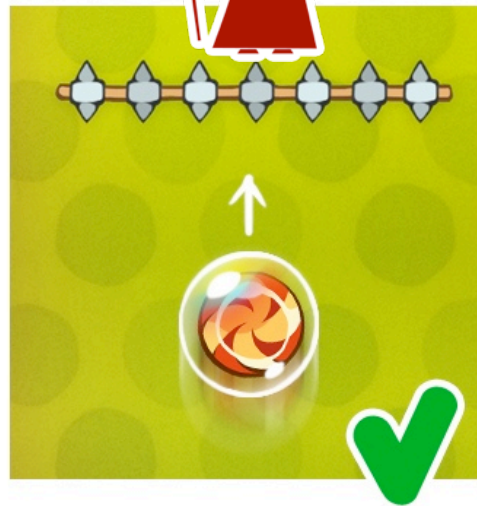
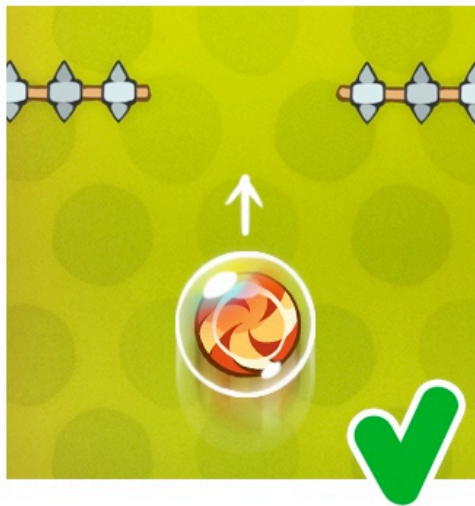
3. Enable planning  
(not trial and error)





# Our principles in level design

You shall not pass!





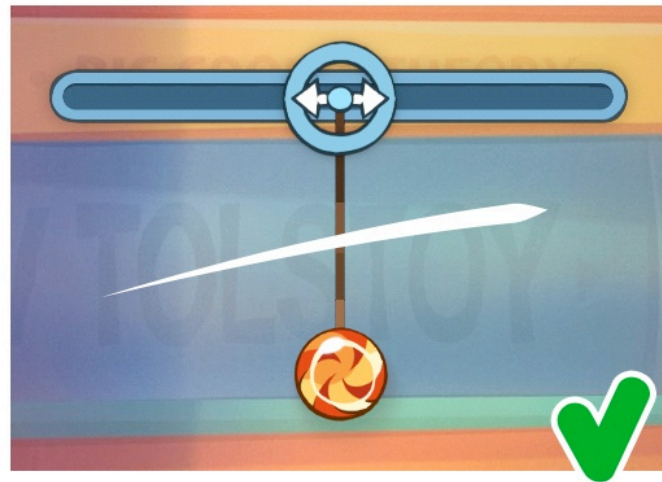
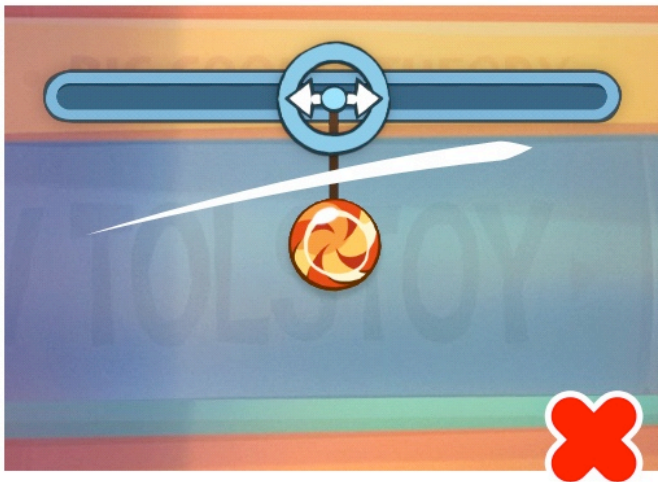
# Our principles in level design

4. The solution of the level should look logical, elegant and reproducible.



# Our principles in level design

5. Level design shouldn't uncover the weaknesses of the game/engine.



# Our principles in level design

6. Tutorial level shouldn't be passable without using the principle it explains.



# Our principles in level design

7. It's Ok to break those rules.



# Levels order

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	#	File	Bubble	Air Pump	Auto Rope	Timed Star	Movable Holder	Spikes	Spider	Bouncer	Gun	Suction cup	Rocket	Rotatable Rocket	Flying Star	Hidden Pict	Scroll	Difficulty (1-10)	Comments
2																			
3	1	bonus1a														x		1	Tutorial: rope cutting
4	2	bonus2a														x		3	Tutorial: stars
5	3	bonus10k	x															3	Tutorial: bubbles
6	4	bonus25a																	Tutorial: restart level
7	5	bonus23b	x	x												x		5	Tutorial: air pump
8	6	lal22	x	x														5	Tutorial: leaving the box
9	7	bs_01			x													6	Tutorial: auto rope
10	8	bonus20a	x	x	x													7	
11	9	bonus40	x	x		x												7	Tutorial: timed star
12	10	bs_02	x		x													4	Tutorial: cutting several ropes at once
13	11	bs_04	x		x		x											7	Tutorial: movable holder
14	12	lal20	x				x											7	Tutorial: skip level
15	13	bs_03					x									x		6	Tutorial: stretched ropes
16	14	bs_07a	x	x												x		5	
17	15	bonus23a	x				x	x										9	Tutorial: spikes
18	16	bonus19a	x				x	x								x		6	
19	17	bonus14a	x	x												x		5	
20	18	bonus12d	x	x					x									6	Tutorial: spider
21	19	bs_10d	x					x	x									8	
22	20	bs_13		x	x	x										x		7	Tutorial: fast actions
23	21	lal19			x					x							v	4	Tutorial: bouncer
24	22	lal02	x							x								4	
25	23	lal01			x		x			x								6	
26	24	lal06	x	x						x								8	
27	25	lal13	x				x			x								6	
28	1	lal16a									x							2	Tutorial: Gun1
29	2	lal16c									x							3	Tutorial: Gun2
30	3	lnew13	x					x			x					x		3	
31	4	lnew01		x							x							3	
32	5	lnew02	x								x					x		2	
33	6	lnew07a	x			x					x						v	3	
34	7	lnew22	x					x			x							5	





# Data driven decisions

Customer Reviews Current Version (2511) All Versions (127430) Sort By: Most Recent

**help** ★★★★★  
by Loverofember - Version 1.6 - Jan 20, 2012

level 9 in valentines box is IMPOSSIBLE!!!!!!!!!!!! why why why would u do this to me

Was this review helpful? [Yes](#) | [No](#)

**Hmm..** ★★★★★  
by Markwflsch - Version 1.5 - Nov 4, 2011

I like candy too..dr. horrible.

Was this review helpful? [Yes](#) | [No](#)

**Best ever** ★★★★★  
by Zanae - Version 1.5 - Nov 4, 2011

Awesome!!! Totally addicted!

Was this review helpful? [Yes](#) | [No](#)

**Awesome** ★★★★★  
by Midgeeeee - Version 1.5 - Nov 4, 2011

Well worth the price. Fun for me and my three year old.

Was this review helpful? [Yes](#) | [No](#)

User reviews



# Data driven decisions

Facebook polls

What is your favorite box in the game? ×

<input type="radio"/>	Cardboard Box	  ...
<input type="radio"/>	Fabric Box	...
<input type="radio"/>	Foil Box	...
<input type="radio"/>	Gift Box	...
<input type="radio"/>	Cosmic Box	...
<input type="radio"/>	Valentine Box	...
<input type="radio"/>	Magic Box	...
<input checked="" type="radio"/>	Toy Box	  ...

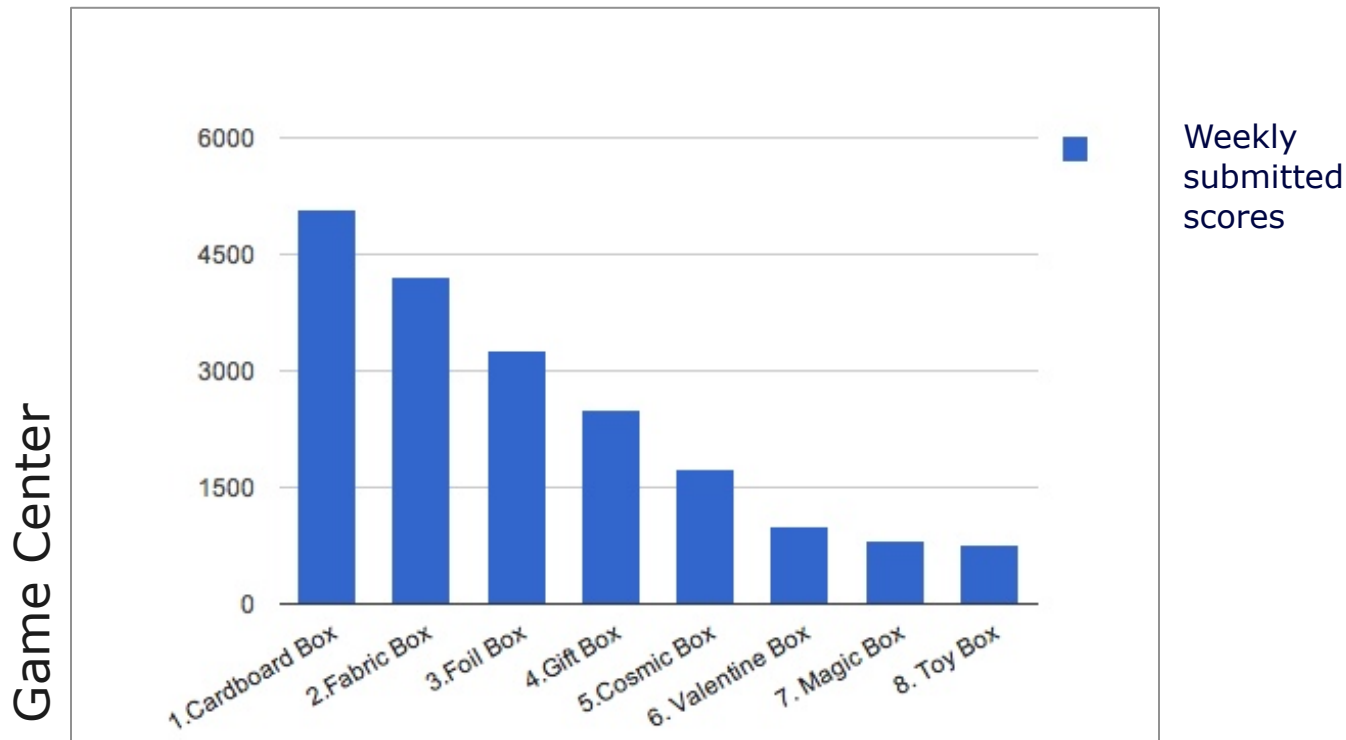
Asked By 2,823 Votes · 104 Followers

 Cut the Rope  
about 2 months ago · Share · Delete · Unvote Ask Friends Unfollow

Posts Friends · Others (51)

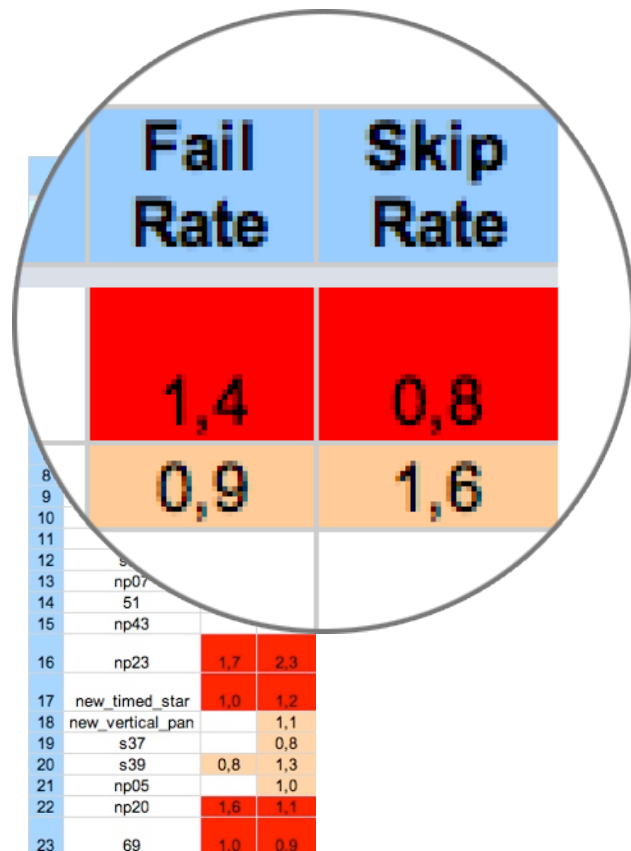
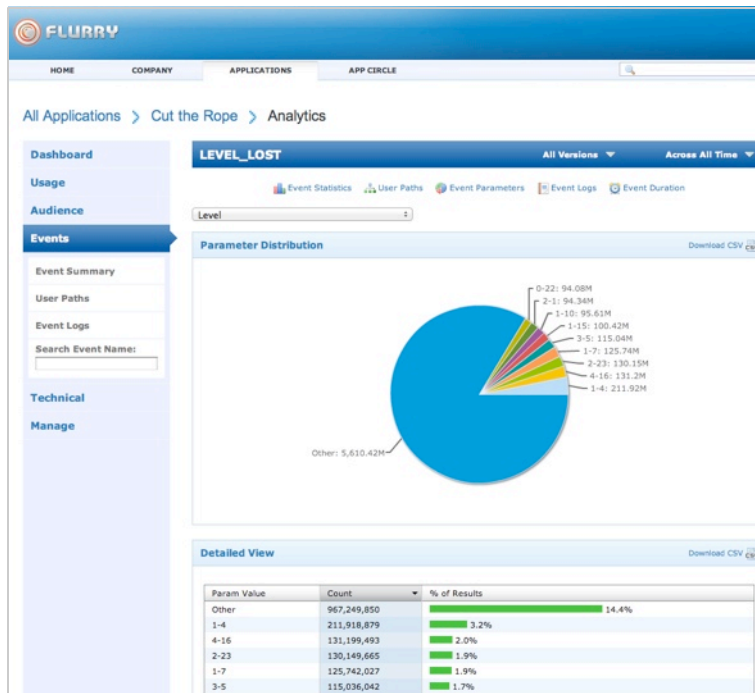
 Write something...

# Data driven decisions



# Data driven decisions

Flurry



# Results So Far

- More than 900 levels created, around 400 used in the games (CtR Original & Experiments)
- Around 22 gameplay elements created
- **Players want more!**



# Thank you!

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