

SUP ERC ELL

Lessons learned in Game Design
Pavel Volkov



Introduction

QUICK INTRO



- Math and Computer Science degree
- Nearly 10 years in game dev
- At Supercell for 7 years
- Worked on titles like Clash Royale, World of Warships
- Have experience in Data Analytics and Game Design
- Now work on a brand new game

HOW I GOT TO GAME DESIGN



3.5 years

3.5 years



Joined Supercell
as Data Scientist

Previous designer
left & I switched role

Left to join a
new project



What is Game Design?

WHAT IS GAME DESIGN?

“Game design is the art and science of creating interactive systems that engage, challenge, and entertain players through structured rules, goals, and feedback loops”

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Quote by





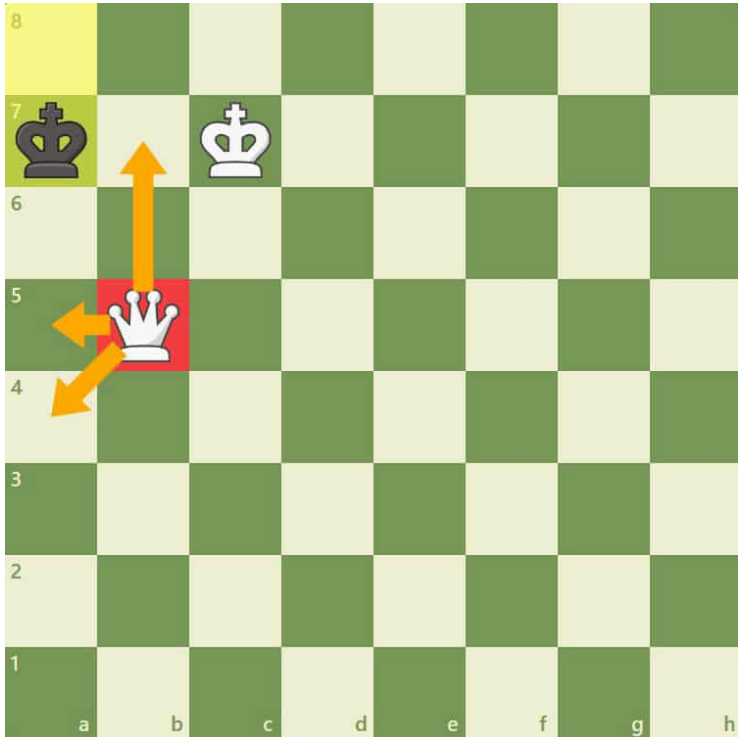
What makes a game

WHAT MAKES A GAME



- Goals (must)
- Rules (must, usually come with limitations)
- Feedback
- Progression
- Challenge

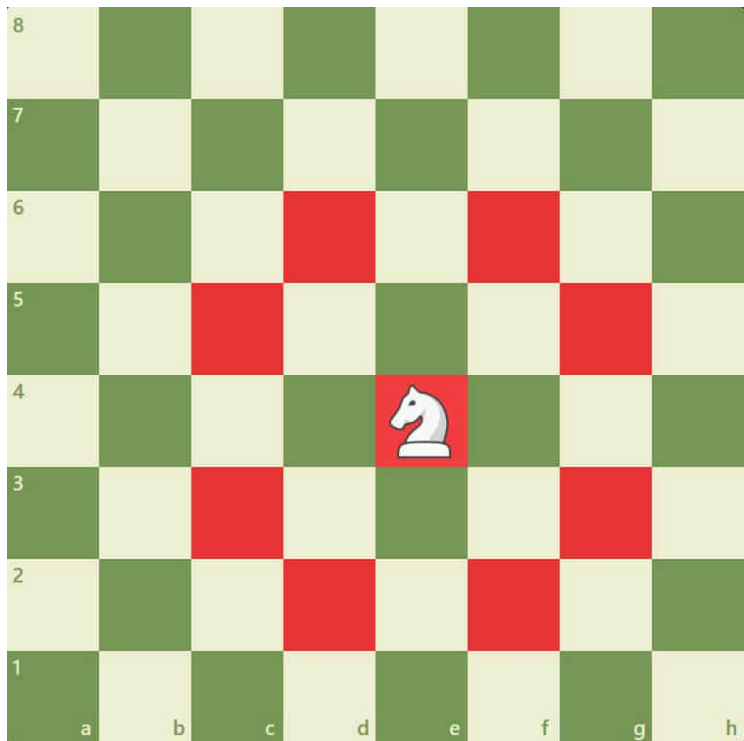
WHAT MAKES A GAME



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WHAT MAKES A GAME



- Goals
- Rules
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- Progression
- **Challenge**

The background is a blue-tinted image of two characters from the game Skylanders. On the left is King of the Clouds, a king with a crown and a mustache, pointing his right hand. On the right is a dragon-like creature with large horns and a wide, toothy grin. The text is centered over the image.

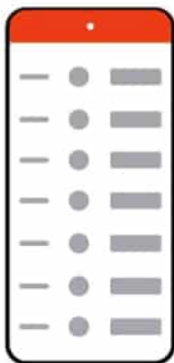
WHAT IT TAKES TO MAKE A GAME
(professional viewpoint)

SUPERCELL CULTURE

- The best teams make the best games
- Small and independent cells
- Games that people will play for years
- Games as a Service

MONETIZATION STRATEGIES

5 GAME MONETIZATION MODELS



In-Game
Purchases



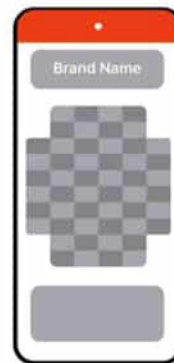
Subscription
Model



In-Game
Advertising



Premium
Paid Model



Sponsorships

CORE TEAM ASSEMBLY



Artist



Programmer



Designer

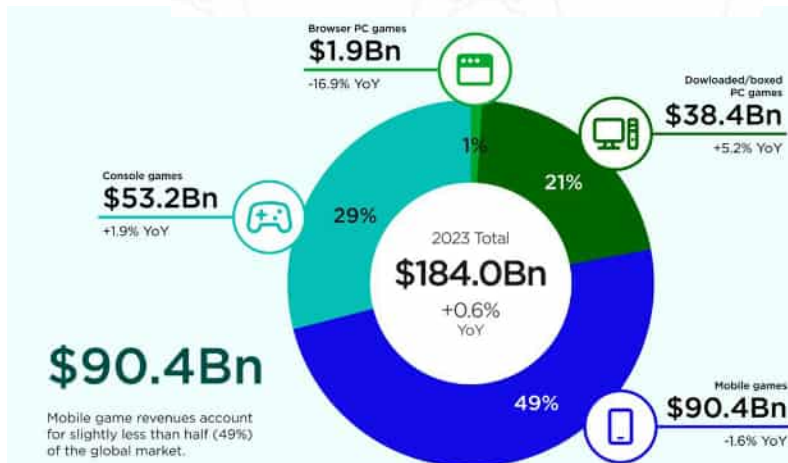
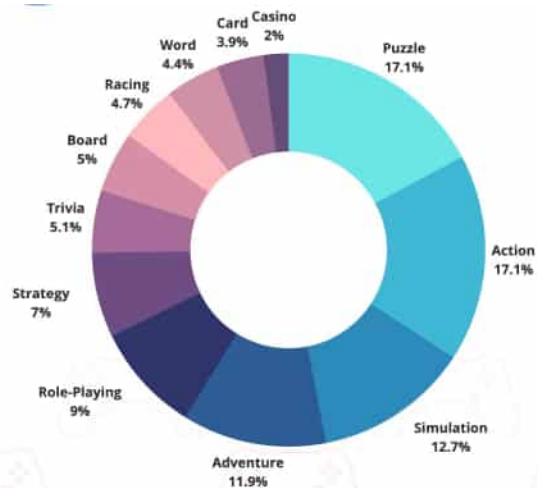
- Share the same values
- Share the same game vision
- Align on the execution plan
- Small team size for easier navigation and cost-effectiveness

GAME'S PRODUCT-MARKET FIT

- “What’s the unique selling proposition of your game?”
- Is there (enough) audience for the game?



Back up your assumptions with market research



ALIGNMENT PHASE



- Agreeing on glossary
- Broad strokes requirements for MVP (Minimal Viable Product)
- Setting deadlines and goals
- Investment in execution speed

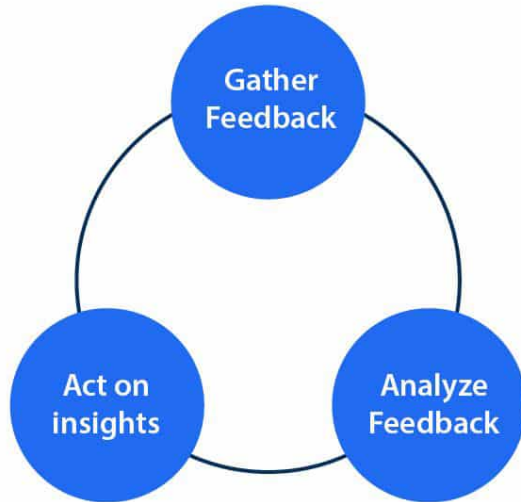
AS THE DEV PROCESS GOES



- Proceed towards aligned direction
- Break down vision into smaller sets of dev “hops” and close imaginary gaps asap
- Things get more clear as you go
- Define must-have features for the first public test
- Set yourself a clear goal and verify your assumptions with real players

AFTER FIRST PUBLIC TEST

Feedback Loop



- Check on your original assumptions
- Make adjustments based on the observations
- Set another achievable milestone to test
- Iterate until you reach desired metrics
- When targets are reached - congratulations, your game is ready to roll live as a stable business



**HOW DOES TEAM CHANGE WHEN THE GAME IS
READY TO GO TO LIVE OPERATION**

TEAM GROWTH



Artist



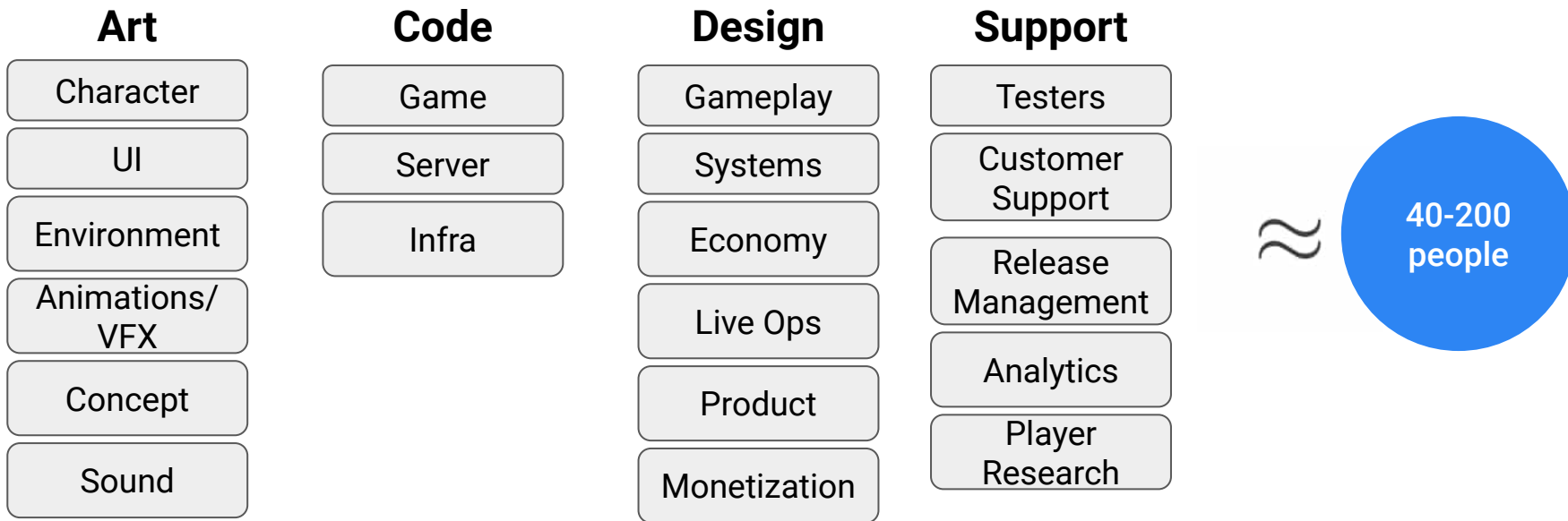
Programmer



Designer

TEAM GROWTH

Live game implies non-stop content production that would suffice players needs





LEARNING DIMENSION IN GAME DESIGN

ONBOARDING

Every single game has some learning element in it as it needs to teach players the rules and engage them throughout the game

LEARNING

Some noticeable concepts:

- Tutorial
- Complexity budget
- Complexity alleviation with visual language
- Rewards
- Progression

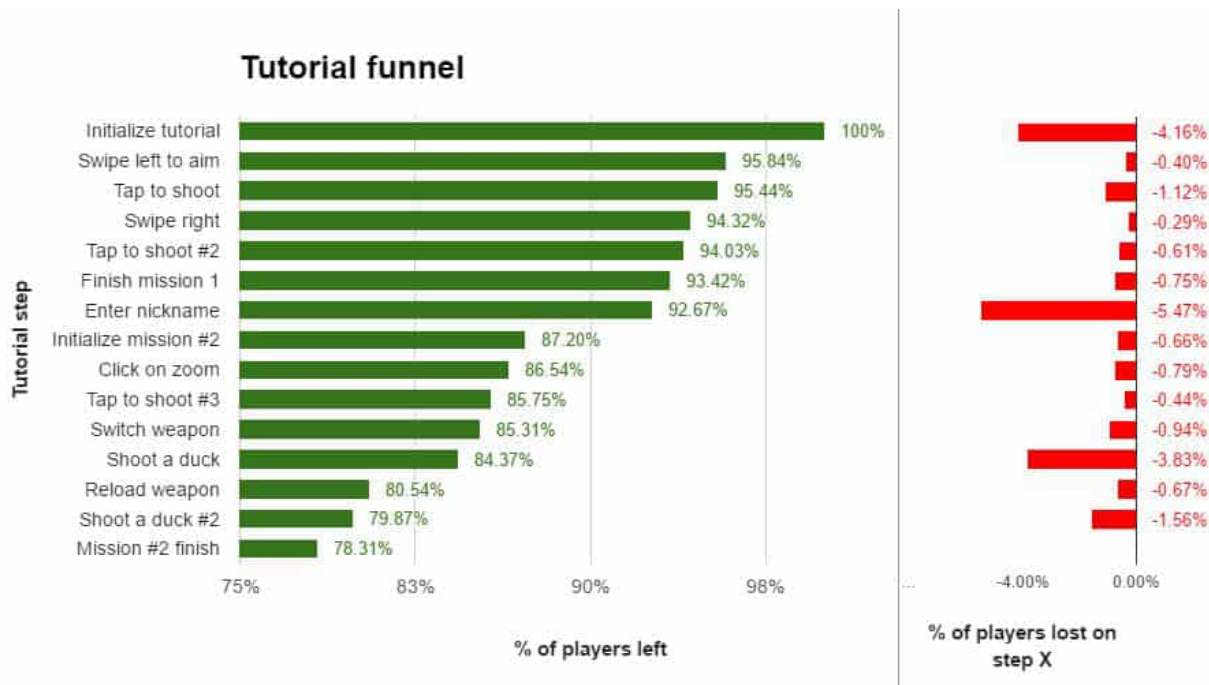
TUTORIAL

- Best tutorials are non-pushy, learn-by-doing ones



TUTORIAL

In many games it's optimized and iterated on using funnel analysis



COMPLEXITY BUDGET

“Game designs have a complexity budget. You can only have a certain amount of complexity and you have to figure whether it’s worth spending.”

— Richard Garfield, creator of Magic the Gathering

COMPLEXITY BUDGET

- Players need a game to be simple enough to learn but complex enough to remain engaging over time



COMPLEXITY BUDGET

- Keep initial mechanics straightforward to onboard new players, saving complexity for later when they are ready to explore advanced strategies

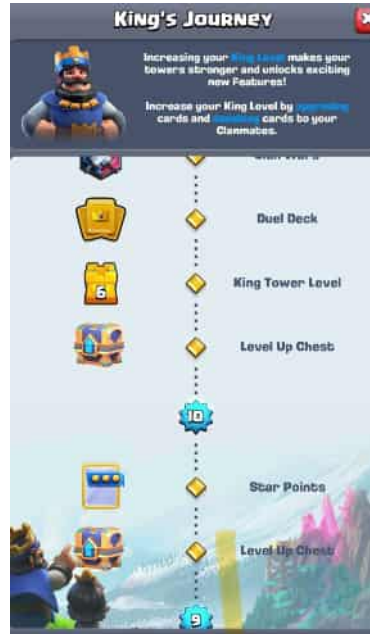


6 months



COMPLEXITY BUDGET

- Introduce mechanics one at a time so players can master them without feeling overwhelmed



COMPLEXITY BUDGET

- Different audience has different complexity budget



A screenshot of a game analytics dashboard. The top right corner shows 'Netto / month' and '02.07'. Below the header is a table with columns for various player metrics. The table is sorted by 'Skillpoints' in descending order.

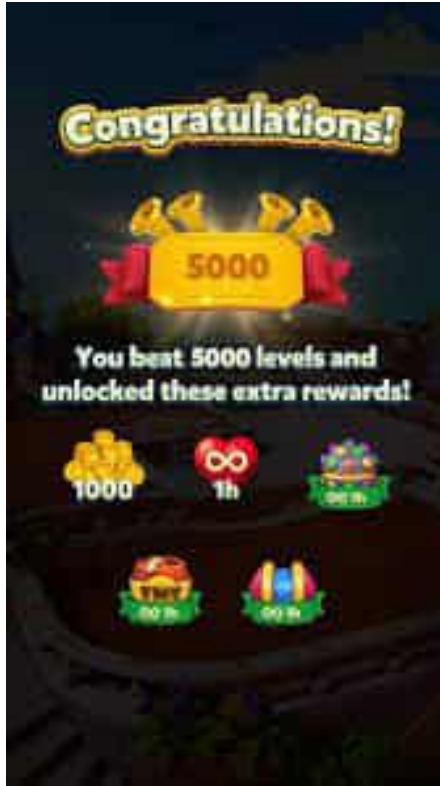
USERNAME	Skillpoints	Skillpoints %Max	ren Acc:	Subscr. end:	Acc. path:	MAC: F Subscr. expires:	MAC: F training end:	MAC: F Subscr. expires:	MAC: F training end:	Skillpoints ratio:	Head	Mail	Chat	Face	Bank	Stats
...	220,954,968	50%	...	21 days 03:30	18.07.2018 00:00	...	...	...	...	16.07.2018 22:04	...	...	...	...	1345
...	182,622,664	40%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	22.06.2018 23:58	...	...	...	...	2763
...	152,526,500	33%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	17.07.2018 18:52	...	...	...	...	2972
...	132,727,581	29%	...	19 days 04:18	18.07.2018 00:00	...	...	...	...	No training	...	...	...	...	2023
...	120,920,825	27%	...	23 days 02:14	31.07.2018 21:04	...	...	...	...	20.07.2018 22:04	...	...	...	...	1720
...	115,626,500	25%	...	19 days 04:18	18.07.2018 00:00	...	...	...	...	16.06.2018 13:47	...	...	...	...	3193
...	105,888,100	23%	...	23 days 13:17	22.07.2018 00:00	...	...	...	...	04.06.2018 07:31	...	...	...	...	2704
...	102,741,000	22%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	10.04.2018 01:49	...	...	...	...	1703
...	97,515,162	21%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	21 days 04:18	...	...	...	...	1703
...	94,243,500	20%	...	23 days 13:13	22.07.2018 00:00	...	...	...	...	10.06.2018 11:06	...	...	...	...	1703
...	93,725,000	20%	...	19 days 04:18	17.07.2018 00:00	...	...	...	...	08.06.2018 21:00	...	...	...	...	2101
...	87,217,000	19%	...	23 days 13:13	22.07.2018 00:00	...	...	...	...	08.06.2018 20:04	...	...	...	...	2546
...	86,849,000	19%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	20.07.2018 23:27	...	...	...	...	1703
...	85,827,500	18%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	26.06.2018 16:13	...	...	...	...	2704
...	83,860,000	18%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	10.04.2018 04:41	...	...	...	...	1703
...	82,792,700	18%	...	23 days 13:14	22.07.2018 00:00	...	...	...	...	08.06.2018 18:06	...	...	...	...	1703
...	81,962,500	18%	...	21 days 04:18	20.07.2018 00:00	...	...	...	...	19.06.2018 12:20	...	...	...	...	2704
...	80,865,000	18%	...	23 days 13:14	22.07.2018 00:00	...	...	...	...	16.06.2018 23:52	...	...	...	...	2704
...	79,810,500	17%	...	3 days 04:18	02.07.2018 00:00	...	...	...	...	10.06.2018 00:31	...	...	...	...	1703
...	78,843,500	17%	...	23 days 13:17	22.07.2018 00:00	...	...	...	...	29.07.2018 00:30	...	...	...	...	1703
...	78,808,000	17%	...	5 days 04:18	04.07.2018 00:00	...	...	...	...	04.06.2018 17:03	...	...	...	...	2023
...	78,808,000	17%	...	23 days 13:16	22.07.2018 00:00	...	...	...	...	03.06.2018 16:46	...	...	...	...	1703
...	77,810,500	17%	...	5 days 04:18	04.07.2018 00:00	...	...	...	...	14.06.2018 18:04	...	...	...	...	1703
...	76,715,250	17%	...	23 days 13:16	22.07.2018 00:00	...	...	...	...	26.07.2018 00:00	...	...	...	...	2023
...	76,667,500	17%	...	5 days 04:18	04.07.2018 00:00	...	...	...	...	17.06.2018 04:41	...	...	...	...	1703
...	76,667,500	17%	...	21 days 13:18	22.07.2018 00:00	...	...	...	...	27.07.2018 03:14	...	...	...	...	1703
...	76,667,500	17%	...	5 days 04:18	04.07.2018 00:00	...	...	...	...	09.06.2018 04:23	...	...	...	...	1703
...	76,667,500	17%	...	22 days 14:54	23.07.2018 00:00	...	...	...	...	13.02.2018 17:41	...	...	...	...	2023

VISUAL LANGUAGE



REWARDS

- Positive reinforcement of certain behaviours
- Feeling appreciated for their time
- Achievement & acknowledgement of progress



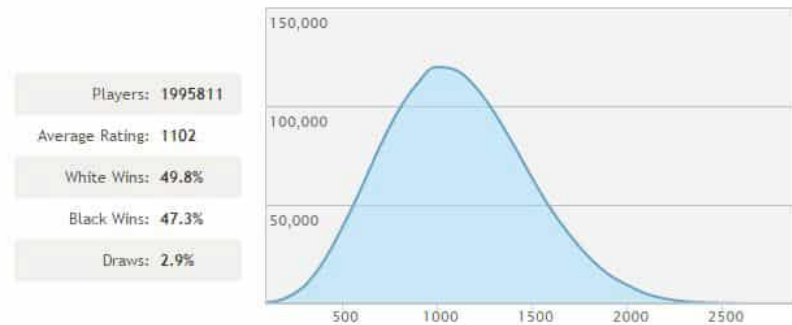
PROGRESSION

Key for long-term engagement



👤👤 Live Chess Players

Turn-based: **Standard** **Chess960** Live: **Bullet** **Blitz** **Standard**





QUESTIONS?