

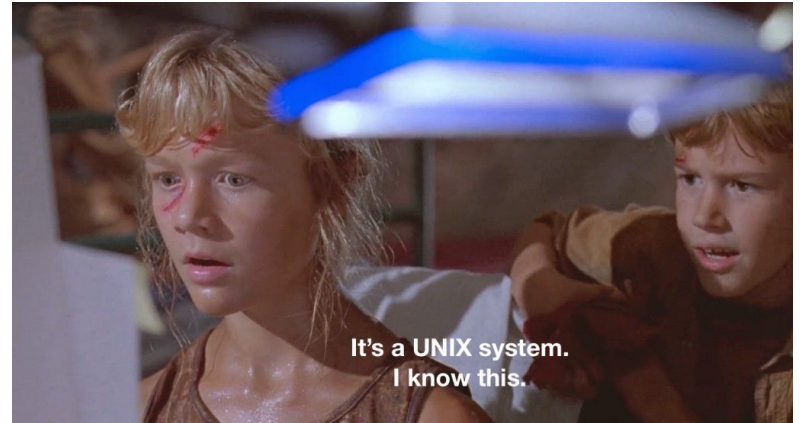
Web games / GameSnacks chat

Andrew Gildfind

PM Google

About me...

- PM Google Ads (AdSense team in London)
- Web games monetisation & distribution products
- Previously SWE: at Google, and SGI (filesystems)
- Research graphics/HCI
- Was here for the first wave of 3D graphics
- Remembers VRML
- Likes web games – they remind me of the '90s
- Quite a UNIXy / systems perspective
- Not an expert on web tech...
- ...forgive my cluelessness



Agenda...

- A little background on Web Games @ Google
- GameSnacks & Monetization
- Challenges of distribution & discovery
- Chat...

Monetisation



Plug & Play
Simple **API-based** in-game ads



Full Control
GPT **tag-based** interstitials & rewards



Distribution



Distribute on Google O&O surfaces,
3P partner sites & apps



YouTube **Playables**
Play games directly in YouTube



What are 'HTML5' games?

- Really just **apps**—but built using web technologies
- Typically Javascript + Canvas/WebGL, also WebASM/WebGPU
- Super-power: **portability**
- Runs anywhere there is a web renderer
- Not web 'pages' (not easily crawlable)
- But multichannel **content** that can be distributed **anywhere**
 - Mobile, desktop, Android, iOS, browsers, webviews, connected TVs, streaming apps, cars, in-flight systems, ...
- Great tech for low-end devices
- Big in the fastest growing markets
- **Fragmented** and **complex** 'post-appstore' distribution landscape



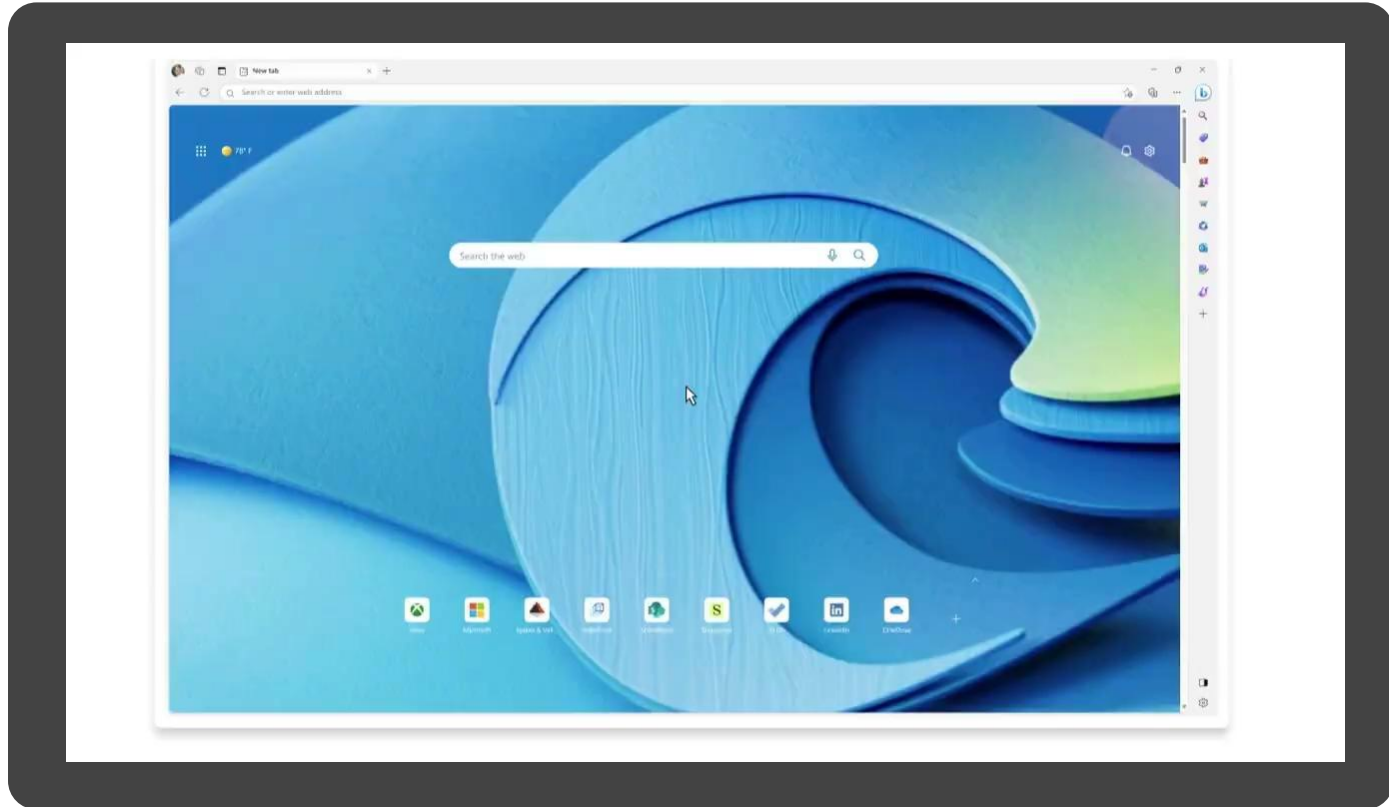
Multiple trends converging...

- The gradual transition to a **streaming** model for games - like music and video
- **New app stores** (enabled by web portability & policy)
- **New distribution channels:**
 - YouTube, Netflix, mobile OEM game apps, Edge, ...
- **AI authored content** with web being the perfect target platform
- Trend: **disintermediation** of app store ecosystem
 - Games streamed straight to users...



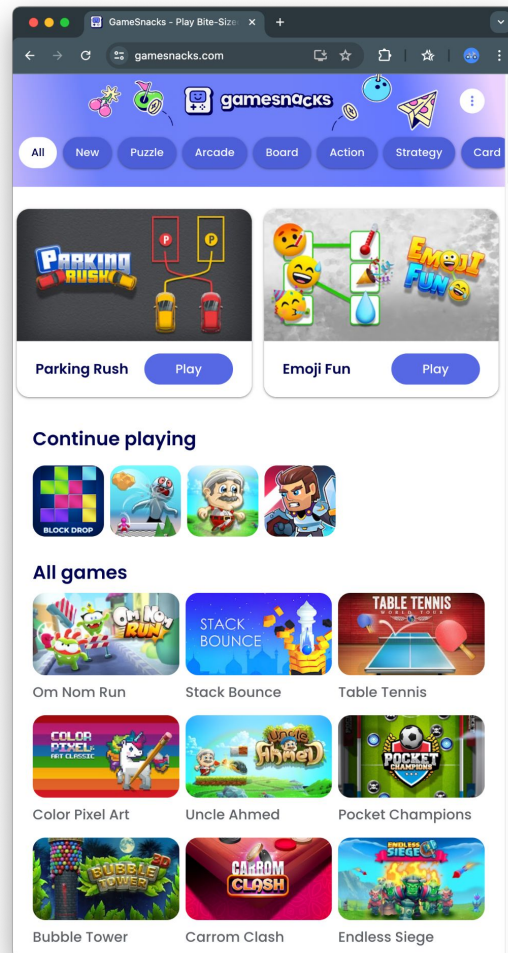
Digital media evolves toward
install-free streaming consumption...

Microsoft Edge...



What is GameSnacks?

- Google's distribution product:
 - Easily embed a catalog of games
 - Drive increased engagement and make money from ads
 - Help devs reach new audiences, particularly on Google surfaces
- Growing network of 1P and 3P distribution partners:
 - gamesnacks.com, Play, Android, YouTube, mobile OEMs, other 3P distribution partners....
- Mix of Originals and licensed content:
 - >170 games and growing
- Dedicated server / high performance CDN
 - All games versioned/approved/qa'd
- Click-to-accept ToS + ads revshare
- Developer console, SDKs, docs, ...
- Partner APIs, drop-in Game Center, or individual games

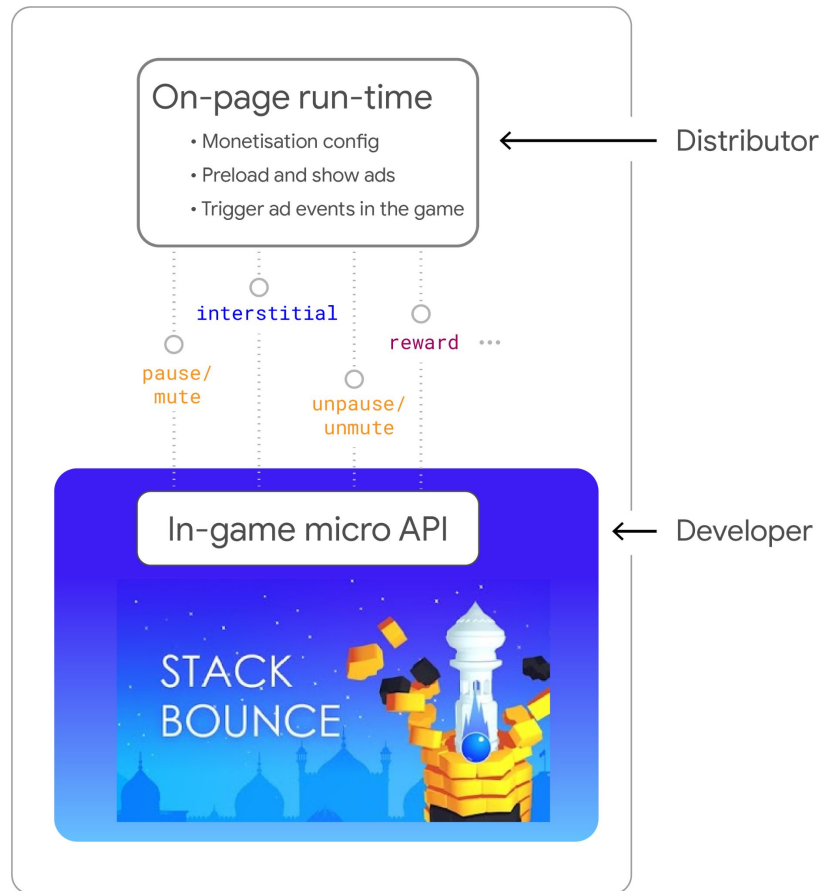




Google AdSense

H5 Games Ads: Ad Placement API

- Our **high-level** H5 games API **designed for games**
- Goals:
 - 'Code once' model
 - 'Policy compliant by design'
 - Simpler for devs
 - Simpler for distributors / OEMs
 - No 'baked-in' ads config in game code
 - Manage large catalogs more easily
 - Not tied to any monetisation product
- You don't code WebGL directly...
why hardcode low-level ads APIs?
- Delivered through the AdSense tag
- Fullscreen. Pre-rolls, Interstitials, Rewarded
- Cross-product: currently integrates with AdSense and AdMob
- Open to integrating with Ad Manager in future



Outside the game... controlled by the distributor/publisher

E.g. change the frequency cap—without changing the game.

```
<script async
  data-ad-frequency-hint="30s"
  src="https://.../adsbygoogle.js?client=ca-pub-123456789"
  crossorigin="anonymous">
</script>
```

Inside the game... simple as possible

```
adBreak({
  type: 'preroll',           A pre roll ad.
  adBreakDone: startGame,  Once it has shown, start game.
})

// game code...

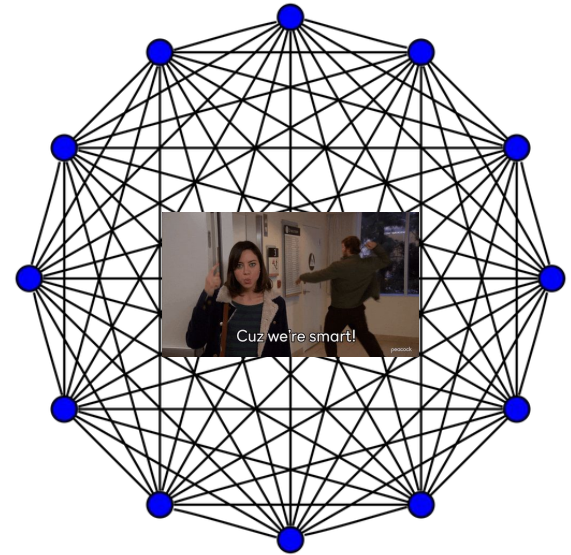
adBreak(
  type: 'start',           The type of this placement.
  name: 'game_started',   A descriptive name for placement
  beforeAd: pauseAndMute, Prepare for the ad.
  afterAd: restartGame,   Resume the game, un-mute the sound
  adBreakDone: logAnalytics, Always called even if ad didn't show
});
```

Distribution & discovery challenges...

Some challenges...

Distribution

- Transition to streaming / syndication means games will increasingly be assembled into large catalogs, by:
 - Explicit distribution deals (Facebook Instant, MSN, GameSnacks, etc.)
 - Organic crawl / search.
- As a rule there will be multiple entities involved in the management of content:
 - Who want to optimise the content...
 - ...and get paid
- Core issue:
 - **Lack of standardization**
 - No app store-like entity to drive (defacto) standards
 - Ecosystem fragmentation & pain
 - At Google we've already N+1'd standards in this space (more than once 😊)
- Consequence:
 - Every distribution platform has their own API
 - Developers must release, test and maintain many variants of their games
 - M*N complexity
- **What would it take for distribution & discovery of games to be as 'easy' as video?**
 - Video is linear, crawlable, standardised, transcodable and editable.
- Can we untangle distribution logic from games?
 - Don't bake any particular solution into the game?
 - In the general case very hard—maybe impossible?
- Maybe focus on key business use cases?
 - Ads
 - Payments
 - Analytics
 - Revshare



Web gaming distribution landscape

Some challenges...

Discovery

- Perhaps an even bigger opportunity
- Can we build a truly crawlable game ecosystem
- Can the 20's look more like the 90's?
 - An open gaming web ecosystem beyond the app stores?
- Step 1: Need to make games crawlable
 - Standardise Video Game metadata? (right)
- Step 2? ... huge scope to leverage AI

```
<head>
  <script type="application/ld+json">
    {
      "@context": "https://schema.org",
      "@type": "VideoGame",
      "mainEntityOfPage": {
        "@type": "WebPage",
        "@id": "https://google.com/videogame"
      },
      "name": "Game title",
      "description": "Game description",
      "url": "https://example.com/game.html",
      "genre": "action",
      "accessibilityControl": "touch",
      "operatingSystem": "web",
      "icon": "https://example.com/icon/icon_1024x1024.jpg",
      "gameBanner": "https://example.com/landscape_banner.jpg",
      "about": "https://example.com/about.html",
      "privacyPolicyURL": "https://example.com/privacy.html",
      "gameExecutionMode": "clientside",
      "image": [
        "https://example.com/screenshot/1.jpg",
        "https://example.com/screenshot/2.jpg",
        "https://example.com/screenshot/3.jpg"
      ],
      "author": {
        "@type": "Organization",
        "name": "Game Developer",
        "logo": {
          "@type": "ImageObject",
          "url": "https://example.com/developer_logo_1024x1024.jpg"
        }
      }
    },
    ...
  </script>
</head>
```

VideoGame Schema proposal