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Netflix choose your own adventure shows could be the future of TV



Bandersnatch, released in December 2018 CREDIT: NETFLIX

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During the dark days of 1977, when even the world of *Stranger Things* would have seemed daringly futuristic, an unusual box was delivered to 30,000 cable TV subscribers in and around Columbus, Ohio.

Columbus is often used by American companies to test new products

(<https://www.columbusmonthly.com/content/stories/2015/01/how-columbus-became-americas-test-market.html>).

Its population approximately mirrors that of the USA as a whole, but the people on average a little younger and a little better educated. Its citizens regularly leak news of mysterious new burgers, novel coffee blends and dubious home gizmos. Living there means living with at least one toe poking into the future.

These cable TV boxes were part of a system called Qube, distributed by Warner Communications. They had eighteen buttons, five of which could be used by viewers to input commands. These commands were collated by a central computer at the TV studio every six seconds, allowing viewers to take part in game shows, cast votes in televised town meetings and predict plays in gridiron football.

It was a daring experiment in interactive television – a primitive echo of the modern internet. And seven years later, after losing millions of dollars and being forced by a criminal trial to release data on how many of its viewers were using it to watch porn (<https://tedium.co/2018/06/26/qube-cable-television-history/>), it was shut down for good.

Recent history is littered with attempts at interactive TV which, like Qube, did not quite take off. Which makes what *Netflix* is doing right now particularly interesting.

A choice in Bandersnatch CREDIT: NETFLIX

You probably noticed when, over Christmas, Netflix released a special interactive episode of Charlie Brooker's science fiction show *Black Mirror* called *Bandersnatch*, accompanied by a big publicity blitz (including a pop-up video game shop). The episode allows viewers to control the decisions of its protagonist, Stefan, via an on-screen interface. Depending on what option you pick, it plays different footage. In theory, Netflix claims that there are more than one trillion possible combinations of choices, though in practice they cluster around five basic endings.

It's not the first interactive show that Netflix has made; there were already several for children, based on licenced properties such as *Minecraft* and *Puss in Boots*. But it is the first time it has applied the technology to one of its own crown jewels, having poached *Black Mirror* from Channel 4 in 2016 for a reported \$40m (£31m). *Bandersnatch* alone was a substantial investment, requiring more than a year to plan, a script more than twice as long as that of a normal episode, and custom-built software to manage its many branching pathways.

Perhaps it is just a PR stunt, another eye-catching but ultimately short-lived experiment. But there are strong signs that Netflix sees it as something more. And if the world's second biggest media company by market capitalisation, a continual innovator with almost 140 million paying subscribers, is seriously committed to the idea, then could the future that Qube's creators envisioned finally be about to arrive?

Ahead of their time

"I can't tell you the number of times that reporters have asked me that question," says Nick DeMartino. Now a consultant in Los Angeles, California, he was for 20 years the head of the American Film Institute's digital content lab. While there, he worked on more than 90 interactive TV projects, often in collaboration with big studios.

It wasn't a fruitless effort: the production methods he developed are now widely followed, and many of the projects did get made, from branded CD-ROMs to multi-threaded YouTube dramas. It's just that they never really crossed over into the mainstream in the way that their cheerleaders had hoped.

"You have a cycle of thwarted innovation over and over again in different places, where nobody really had a breakthrough and the project was assessed as a failure because it didn't get the same audience as *Jersey Shore*," says DeMartino. "There was [usually] an internal champion who believed that this was the future.. They would create a skunkworks team or bring in an outside vendor, but nobody in the main part of the business gave a sh--. So it would be under-promoted and under-resourced, and it would fail."

Part of the problem was the technology. DeMartino recalls trying to make an interactive cartoon singalong run on a set top box with one megabyte of memory. "We were basically cobbling together phones, televisions, all the different parts of the internet," he says. "In order to solve the creative problems we had to solve platform problems – coding and memory and user interface problems." Creators "literally kept track of the story with colour-coded post-it notes and colour-coded string."

But the bigger problem was with the medium itself. "The conclusion that I came to, reluctantly, was that we were way ahead of the audience," he says. "Those people that were interested in interacting with their media were doing so on [video] game consoles predominantly". Indeed, a core part of why people watch TV seemed to be because they don't have control – because the director and the screenwriter have the capacity to surprise and horrify us. And so, he decided, "the dream of figuring out a way for direct user agency in a narrative story was something of a fool's errand."

Twisty little passages

Meanwhile, however, the video game industry was germinating new ideas that would later have a big influence on what Netflix built.

Bandersnatch is set in 1984, following a young game designer called Stefan who lives at home and is struggling to adapt the eponymous fantasy novel. As his task becomes more difficult, his mental health begins to fray and he stumbles into a series of twisted parallel realities. He is one of Britain's famous "bedroom coders"

(<https://www.telegraph.co.uk/on-demand/0/bandersnatch-true-story-uk-gaming-giants-nightmare-inspired/>) – a generation of digital auteurs whose creative experimentation left its mark

on the medium. *Bandersnatch* the novel is also interactive, one of those corny but fun adventure books where you flip to a different page depending on whether you want to kill the goblin or get married to it.

Game designers call this form of narrative a Choose Your Own Adventure (CYOA), though the Telegraph's lawyers would probably like me to mention that the publishers of the original CYOA books are currently suing Netflix for copyright infringement. Such narratives have the structure of a tree: many branching paths, splitting off from each other, occasionally converging again at certain hub points.

Video game creators have spent three decades building on this structure. "The richness and sophistication of dynamic narratives is a generation on from the classic branching narratives," says Sam Barlowe, a game designer whose work makes extensive use of real world footage. His game Her Story (<https://www.telegraph.co.uk/gaming/what-to-play/her-story-review/>), for instance, asks players to watch videos of a police interrogation in order to solve a murder case, and his upcoming *Telling Lies* is a political thriller in the vein

An image from 'Her Story'

For instance, interactive novels have grown slowly but surely from a largely academic and underground art form to one with a commercial niche. On smartphones, a company called *Choice of Games* publishes interactive potboilers in which the reader chooses who to sword-fight and who to romance. In technical terms they all work pretty much in the same way, allowing authors to focus on the drama, character and plot. *Episodes* and *Choices* are cartoony teen dramas in a similar vein. Another company cited by Barlow, Inkle, has built widely-used software for threading passages of text together, most famously used in the award-winning steampunk adventure *80 Days*.

Meanwhile, more expensive games such as the *Walking Dead* series, *Detroit* and *Life Is Strange* have established a generic pattern for story-led games in which players can focus on making big choices rather than exercising their motor skills. They resemble CG movies which pause every so often to give you a menu of narrative options. Netflix was actually working with Telltale, the developer of *The Walking Dead*, on a video game version of its flagship show *Stranger Things* – until Telltale went spectacularly bankrupt in September last year. (The game may still appear in another form.)

The influence of all this on *Bandersnatch* feels pronounced. Its basic format is almost identical to that of a Telltale game, right down to the timer that forces you to make a choice within ten seconds. It was initially prototyped using Twine, a free tool that is widely used by interactive fiction authors. Brooker, who began his career as a games

"Working with Brooker was a great idea because the guy has a deep history with and knowledge of gaming and interactivity," says Barlow. Indeed, he says, *Bandersnatch* is perhaps a little basic. "I think people need to be braver in terms of giving the support and budgets to interactive creators who have spent twenty-plus years thinking and developing skills in this space."

The streaming revolution

While the games industry was laying the artistic foundations of *Bandersnatch*, the entire internet industry was building the technology to make it possible. We are a world away from the patchwork of incipient technologies that creators once had to grapple with.

"We're at a point where the streaming of video on demand, with a high enough bandwidth on the user side and the right tools on the delivery side, give us new opportunities," said John Buffone, a market analyst at NPD. "Think back to when people were focused on linear television viewing, or to the transition to digital video recording. There really wasn't a strong distribution vehicle with the right technology to offer us this kind of seamless, immersive experience."

Netflix in particular has prospered because it has already created a reliable system for streaming video segments, and letting users pick between them, at multiple resolutions across a large variety of devices. It already includes tools for picking options that are overlaid onto the screen and switching rapidly between different video feeds.

A pop-up video game store in Old Street, London, promoting the release of *Bandersnatch* CREDIT: JONATHAN BRADY/PA

You could, if you like, make your own game of it: sit down with from friends, pick a TV show, and then see who can navigate to an image of Adolf Hitler the quickest (I didn't say it would be a good game). Or, perhaps more realistically: are you quick enough to stop Netflix from automatically skipping past the credits at the end of each episode?

"I'm in awe of what Netflix did with the platform," says DeMartino. "It is no small feat to deliver a coherent interactive story to 100m people worldwide on a simultaneous platform. It worked seamlessly, I did not have any software glitches, when I made a choice it booted and the story just rolled out without a pause and without any visible link, as if that was the story that was supposed to unspool. I found that pretty remarkable."

Nor is Netflix alone in this field. A British company called Wirewax sells software that lets advertisers and filmmakers braid interactive elements, such as pop-up infographics, selectable camera angles and branching narratives, into their footage. One of its demonstrations invites the user to recreate *Bandersnatch* using fragments of footage in only a few hours.

We're all gamers now

All this tech will not amount to much if the audience is still not interested. Yet according to Professor Janet Murray, who has studied interactive narrative for decades and whose 1997 book *Hamlet on the Holodeck* is now a foundational text in game design, there are many "wonderful signs" that this too has changed.

She was not impressed by *Bandersnatch* itself: "The choices are arbitrary and the writers are not invested in the happiness of the character.... this would not be a successful project in my interactive narrative class." But, she says, video games, and the mechanics of Netflix itself, have established "a transparent vocabulary of interaction," a "palette" that can be used for "emotionally expressive storytelling".

She cites the success of *La La Land*, which has an extended sequence involving multiple timelines, and the TV show *Community*, which has a famous episode exploring every potential outcome of a dice roll, as evidence that audiences are increasingly interested in the idea of experiencing different versions of the same reality.

"You see startlingly enormous growth in every category of interactivity," says DeMartino, citing the proliferation of smartphones, the rise of game-like apps and the "Youtube phenomenon". All of these things have normalised the idea of interacting with video content to a greater extent than simply changing the channel, from pruning your subscriptions through writing a comment to filming your own response.

Once, it was common for radio stations to tell their listeners: "Don't touch that dial!" But the equivalent phrase on Youtube is much more intense: "Don't forget to like and subscribe!"

Moreover, says Buffone, the potential audience for something like *Bandersnatch* is very large. It is much less intense than most video games, requiring viewer input only every five or ten minutes rather than every few seconds. "I don't think it makes sense to say that because gaming has become more mature that there isn't room for this," he says. "This is light touch entertainment, not high-touch. It's a much larger audience than just those consumers who are gaming."

So the creative methods, the technology and the audience all seem to be in place. The question remains: how committed is Netflix?

The Netflix effect

Netflix is famous for collecting enormous amounts of information about who watches what in its apps. By analysing viewing figures it has created tens of thousands of incredibly specific custom genres (<https://www.telegraph.co.uk/on-demand/0/netflix-codes-secret-numbers-unlock-1000s-hidden-films-tv-shows/>) in an attempt to target its customers' most

It has "feel-good films for ages 8 to 10", "understated biographical documentaries", "suspenseful movies starring Denzel Washington" and even "romantic German-language gay and lesbian movies". The company's Twitter feed once even specifically called out "the 53 people who have watched *A Christmas Prince* every day for the past 18 days," asking: "who hurt you"?



Such data is almost never shared with the outside world – except for the purpose of slightly creepy Twitter jokes. We therefore do not know whether *Bandersnatch* has done well enough to justify its cost. But Carla Engelbrecht, a seasoned creator of educational video games hired to be Netflix's director of product innovation, told the Telegraph that *Bandersnatch* will not be a one-off.

"Expect more to come," she said. "We think interactive storytelling will be a great source of enjoyment for many of our members and there's endless possibilities with what you can do with this type of format across different genres." She strongly hinted that other projects involving well-known creators are already in the works, saying: "We're excited to see what others come up with." I understand that Netflix has already approached multiple video game developers about potential collaborations.

In a live YouTube broadcast to accompany Netflix's most recent round of earnings last week, its chief content officer Ted Sarandos doubled down on that. Creators, he said, are "salivating over the possibilities". "We've got a hunch that it works across all kinds of storytelling, and some of the greatest storytellers in the world are eager to dig into it."

What's in it for Netflix?

Looming in Netflix's future is an apocalyptic event that some analysts have called the "content crisis". The theory goes that as it grows larger, other TV networks who currently licence their shows to it will stop seeing it as a distributor and start seeing it as a competitor.

Attempts by Disney and NBC to develop competing platforms, and the recent 300pc hike in the price that Netflix pays to host *Friends*, suggest that this process may already have started. Netflix's most-watched shows, according to the analytics firm Jumpshot

are still owned by other companies. No wonder it has invested millions in original content such as *The Crown*.

Having a whole line of interactive shows would obviously be a coup, one not yet matched by any other streaming service (and impossible to replicate by live TV channels). Dan Garraway, one of the co-founders of Wirewax, believes it could help stop popular shows from jumping ship to other networks. "If a TV show wants to get made, it can sell itself to Netflix or Amazon, and then later it can switch," he says. If it then becomes interactive, and the rival service does not have the same tools, that won't be possible. Wall Street believes that Netflix will need to hike subscription prices soon to pay for its spending spree; interactive shows, again, would help make the new prices seem worth it.

Black Mirror: Bandersnatch | Read more

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Interactivity is also good for Netflix's specific business needs. "One of the key things that subscription video services focus on is increasing the number of streaming hours per subscriber," says Buffone. "The more engaged you are, the less likely you are to cancel, and the more likely you are to recommend that service to a friend or colleague." It naturally takes longer to explore the multiple paths and branches of a Bandersnatch than it does to watch a normal Black Mirror episode. You can race to some kind of ending in about 45 minutes, but seeing them all can take hours.

Then there is the online afterlife that interactive media can enjoy. Bandersnatch viewers have been swapping secrets and comparing notes since its release, [uncovering hidden symbols or lesser-trod paths](https://www.telegraph.co.uk/on-demand/0/black-mirror-bandersnatch-get-different-endings-mean/). These conversations are a form of free marketing similar to that created by Bird Box, a recent Netflix horror film starring Sandra Bullock which met mixed reviews from critics but inspired a dangerous real-world craze called the Bird Box Challenge. Netflix has even been [forced to deny](https://www.theringer.com/movies/2019/1/3/18167278/bird-box-memes-netflix-bots-marketing) that it used covert social media bots to spread Bird Box memes.

Finally, there is the data. Knowing what choices people make in interactive shows will give Netflix insights into how it can improve them in future. But Jesse Damiani, a former poet who runs a virtual reality storytelling company, speculated at The Verge

mindsets and preferences (what kind of person chooses violence over dialogue?). It could learn their music taste by asking them to pick a soundtrack or learn their eating habits by asking them to pick between real-world foods.

A Netflix spokeswoman would not be drawn on whether it is planning this. But days later, its chief executive, Reed Hastings, confirmed on the earnings call that it is indeed recording all these choices. In an early choice between what cereal Stefan should eat for breakfast – one of Damiani's key examples – Mr Hastings said 73 per cent of people had chosen Frosties. "That's a level of data transparency we've not seen with our content yet!" said Mr Sarandos.

The future of television

Nobody I spoke to this feature believes that interactive TV – what Prof Murray calls "multi-sequential media" – is going to wholly replace more linear (or "uni-sequential") TV. Instead, the question is simply whether it can find a persistent, sustainable business model which would allow it to establish itself as part of the entertainment landscape on par with soap operas or prestige drama.

Bandersnatch, says DeMartino, was "a technical test" that proves Netflix can deploy interactive media to a very large audience. Its next step will probably be to try to get some of its other high-profile creators on board. "Does Ryan Murphy want to do it? Does Shonda Rhimes want to do it? Does [*Black-ish* creator] Kenya Barris want to do this? Those are all people who have signed long-term production deals with Netflix in the last year and a half for massive amounts of money. If you get a Ryan Murphy to do an interactive show, that's a headline two years from now."

It will be hard to know initially how sustainable the genre is, even if Netflix commissions more examples. Given that it is in the business of creating buzz, it may consider the money it spends on such shows part of its marketing budget. It may not be clear whether interactive TV is here to stay until its competitors start attempting to do the same thing.

But Prof Murray believes that the direction of change is clear, even if the pace is not. Having studied the development of the novel over "hundreds and hundreds of years", she takes the long view. She has called the kinds of experiments that DeMartino used to work on "incunabula", a Latin term meaning "swaddling clothes" that is given by historians and literary scholars to early printed books. The implication is that they too will grow up.

"We need this for a lot of very serious reasons," she says. "We've now reached a stage in human culture where we think about the world as a system of interconnected causes,

outgrown the uni-sequential story as the sole means of communicating our lived truths to one another. And so we need, culturally, a form, a genre, in which we can share with one another our insights into systems of variability. It helps us to imagine other ways that our lives can go, that our collective society can go."

Is interactive storytelling the future of TV? Or will viewers choose to tune out of "choose your own adventure" shows?

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