Penetration testing takes on new meaning when cyber meets Harlequin

Enlarge / You had me at “cyber.”

reader comments

72 with 57 posters participating, including story author

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This week, my wife and favorite librarian Paula brought home a new acquisition specially for me: *An Innocent to Tame the Italian*, a recent book from the Harlequin Presents imprint. Author Tara Pammi’s previous books—which include *Sicilian’s Bride for a Price* and *Sheikh’s Baby of Revenge*—share a somewhat politically incorrect *leitmotif* of foreign sexual intrigue. If you’re wondering: no, romance novels are generally not my speed.

But the back-of-the-book tease for this work declared otherwise:

> *For brooding tech billionaire Massimo Brunetti, a cyberattack on his company is unacceptable. After tracking down the savvy Manhattan hacker, he’s stunned to find gorgeous genius Natalie Crosetto. Yet naive Nat isn’t the saboteur. To uncover who she’s protecting, Massimo returns to Italy—with Nat playing his fake fiancée! But this untamable Italian might have met his match in innocent Nat, who challenges him… and tempts him beyond reason!*

“You had me at cyber,” I told Paula.

I quickly dove into a deep literary and technical analysis of this entirely plausible *infosex* drama. The book opens with Massimo working in his combination laboratory and server farm; we know it’s ironclad because of the required thumbprint and biometrics scan, but we also know it’s classy because it’s in an old wine cellar beneath his family villa outside Milan. Plus, he has three screens, so you know he’s a serious cybersecurity hacker man. (*Editor’s note: Maybe we should check on Ron Amadeo‘s secret identity?*)

While in his compu-cellar, Massimo rages at the discovery of someone slipping past his firewalls not once, but twice! Even though nothing was stolen, he immediately tracks down the interloper to a “cyber-club” in Brooklyn. Jacket fact-check: Brooklyn is not Manhattan. We’ll let that bit slide.

Apparently, the hacker was so eager to get into Massimo’s files again that OPSEC was totally abandoned. This makes it easy for Massimo to track her to a falling-down hacker haven. Nat was doing a favor for some other mysterious Italian dude with unknown motives. Threatened with charges under the Computer Fraud and Abuse Act, she suddenly finds herself being essentially kidnapped by Mossimo back to Italy on his private plane.

> *Six chapters in. I am convinced that this book was written by a Harlequin Markov bot.*
>
> *— Sean Gallagher. (@thepacketrat) July 3, 2019*

Nat is a 20-something who lives a poverty-driven boho life. Massimo—who is Mr. Cyber—is, in her eyes, a “sleek, lean, sex-on-legs stud” who looks nothing like the stereotypical tech billionaire. And the chemistry between them ignites as he drags her back to his server room and tells her to do some… penetration testing.

She demurs.

> *“I need a lot of tools and I use open source tech. And get this… some twisted creative genius named it after a Hindu demon hunter.” [We’re guessing this is a reference to Kali Linux] “I need Wi-Fi adaptors that can go into monitor mode and inject packets for penetration testing, a Bluetooth device to monitor traffic, a separate device to install—”*
>
> *“I have everything you need. If you dare, take me on, Natalie?”*
>
> *On a wild impulse, Natalie threw her arms around him and took his mouth in a rough kiss…*

Yeah, that would be my reaction too, girl. Talk Kali to me.

From there, things go a bit sideways. There is a seduction that gets interrupted by a worm followed by even further cyber-posturing, but eventually Nat sets her eyes on the real prize: becoming the actual Mrs. Massimo.

Despite its failings, *An Innocent* is an inspiration to everyone who has written hacker slash-fiction and torrid text messages. If this whole journalism thing goes south for me, I’ll be reaching out to Harlequin to launch my own series, *Forbidden Encounters with a Fancy Bear*.

https://arstechnica.com/?p=1531583

Midsommar is a slasher film

with artsy ambitions that doesn’t quite work

Enlarge / Traveling to Sweden for a rare summer solstice pagan festival that only takes place every 90 years turns out not to be such a good idea in *Midsommar*.
YouTube/A24

reader comments

11 with 10 posters participating

Share this story

A group of young Americans visit a remote Swedish village and find themselves at the mercy of a strange pagan cult in *Midsommar*, the second feature film by Director Ari Aster. The official synopsis calls it “a dread-soaked cinematic fairytale where a world of darkness unfolds in broad daylight.” There are certainly fairy tale elements, but the film also owes a great deal of its aesthetic to 1970s pagan horror—especially the 1973 film *The Wicker Man*—and your standard slasher film tropes. But the various styles don’t really mesh, and the end result is a film that is occasionally unsettling and disturbing, but never truly scary or surprising.

(Warning: spoilers below.)

Aster is a longtime fan of the horror genre and kicked off his career with a controversial short film called *The Strange Thing About the Johnsons*, in which a son develops a taboo incestuous relationship with this father. *Hereditary,* his first feature, also rooted its horror in dysfunctional family drama, with themes of trauma and grief—right before turning into a bone-chilling nightmare. It was lauded by critics as

the scariest movie of the year and likened to such horror classics as *The Exorcist* and *Rosemary's Baby*. Audiences, however, begged to differ; the average CinemaScore for the the film was a "D+." *Hereditary* still took in $79.3 million worldwide, more than recouping its modest $10 million budget.

How you felt about *Hereditary* might be a good indicator of your assessment of *Midsommar*, which shares some of the same themes and Aster's idiosyncratic style, while never quite scaling the same cinematic heights, or plumbing the same psychological depths. Christian (Jack Reynor) wants to go to a summer festival in the remote village of Halsingland in Sweden with his buddies—at the invitation of native Swede Pelle (Vilhelm Blomgren) and over the objections of his girlfriend Dani (Florence Pugh). The couple is on the verge of a breakup after four years together, but then tragedy strikes Dani's family and a guilt-ridden Christian invites her to join them.

Pastoral paradise

- Dani and Christian are on the verge of breaking up.
  YouTube/A24
- The bros are on Christian's side, of course.
  YouTube/A24
- Pelle (Vilhelm Blomgren) thinks his village's midsommar festival is just what Christian needs to break away from Dani.
  YouTube/A24
- Dani tags along instead.
  YouTube/A24
- Such a pleasant pastoral scene. Not weird at all. Nope.
  YouTube/A24
- A toast to the visiting outsiders!
  YouTube/A24
- Meal times are a ritualistic affair.
  YouTube/A24

- A dance competition to determine the May Queen
  YouTube/A24
- Maypole dancers form a symbol.
  YouTube/A24
- Always pay attention to the native art for clues to what's really going on.
  YouTube/A24
- Female bonding, pagan cult style.
  YouTube/A24

"It's sort of a crazy festival, with special ceremonies and dressing up," Pelle disingenuously explains to her in the first trailer, which dropped in May. He neglected to mention all the nubile young Swedish girls in white dresses with flowers in their hair, making eyes at Dani's boyfriend. And what's with all the spooky drawings covering the walls inside the lodge? Add in a native drink with "special properties" (ie, hallucinogens), and things get super creepy (and bloody), super fast. But hey, that's just their quaint folksy ways. And as Pelle earnestly assures Dani, "We only do this every 90 years."

Aster was originally approached by A24 to make a slasher film set in Sweden, but he altered the storyline to focus instead on a couple on the verge of breaking up. The result, per Aster, is "a breakup movie dressed in the clothes of a folk horror film." But those slasher bones are still there, and the film kind of suffers for it, as the characters march toward their inevitable fates with a relentless predictability—all the more so because Aster takes an unnecessarily heavy-handed approach when it comes to foreshadowing. It's impossible for the viewer to experience a surprising twist when it's telegraphed so clearly, so far in advance.

> *The characters march toward their inevitable fates with a relentless predictability.*

There's a weird morality to the slasher genre, whereby

characters' fates are frequently tied to their sins or shortcomings, and *Midsommar* hews to that trope. So when we see Mark (Will Poulter) acting like the stereotypical Ugly American, complaining about the food and constant sunshine, clumsily hitting on the girls, and then taking a leak on the cult's sacred ancestral tree, we know he will pay for his boorish behavior. Ditto for the mild-mannered, ambitious anthropology grad student, Josh (*The Good Place*'s William Jackson Harper, aka Chidi), whose desire to document the holy book and rituals of the cult leads him to breach their rules. There's also a British couple invited by Pelle's brother, whose "crime" is to vocally express horror the first time the festival activities take a bloody turn, and attempt to leave.

As for Christian, he slowly reveals himself to be even more of an unscrupulous cad than we thought. That said, Reynor was disturbed by the audience at a recent screening laughing at his character's fate, telling them, "Shame on you," and arguing that the punishment did not fit the crime. I'm inclined to agree with Reynor in principle, but this is, at heart, a slasher film, where a twisted, perverse sense of "justice" exists solely to rationalize the brutal violence. And Aster himself has said that Christian's fate (which involves a bizarre, ritualistic, and thoroughly dehumanizing mating orgy followed by, well, you'll see) was intended to toy with the audience and invoke such a reaction, goading us to contemplate our own ugly depths, specifically our bloodthirst.

Ancient rites

- Dany might be hallucinating.
  YouTube/A24
- The Oracle is selectively inbred.
  YouTube/A24
- "Are we not going to talk about the bear?"
  YouTube/A24

- Dissecting a bear? Sure why not.
  YouTube/A24
- A ball covered in runes can only bode ill.
  YouTube/A24
- Not so innocuous now, is he?
  YouTube/A24
- There will be blood.
  YouTube/A24
- Free fallin’
  YouTube/A24
- A funeral rite.
  YouTube/A24
- A face anyone can trust. Right?
  YouTube/A24

This is a script that calls for extremely subtle shifts in tone, especially the buried tensions and passive-aggressiveness between Dani and Christian, and the entire cast turns in impressive performances. Reynor deserves extra kudos for his willingness to go full frontal as a display of his character’s utter humiliation and vulnerability; it’s a courageous performance all around.

Blomgren’s Pelle is the perfect embodiment of an outwardly sweet-tempered True Believer with underlying sinister intent, and his clear attraction to Dani gives him a selfish ulterior motive for welcoming her on their trip. He, too, lost his parents (“in a fire”) and rightly intuits that she is psychologically vulnerable and hence an ideal candidate for recruitment. But it’s Florence Pugh’s incredible performance as Dani that drives the entire film. Her journey from a grief-stricken woman trying to hide her pain for fear her callous boyfriend will leave her, to a willing active participant in a bloody pagan sacrifice, gives some semblance of dramatic structure to an otherwise muddled storyline.

The cinematography is stunning and really does give the film the feeling of a dark fairy tale. There’s something about the

horrific events unfolding in a bright pastoral setting bathed in round-the-clock sunlight that heightens that other-worldly effect. At their best, Aster's visuals augment the unfolding narrative without becoming intrusive; other times, they are self-consciously heavy-handed and jar the viewer out of the story. With a running time of two hours and 40 minutes, the film is overlong and ponderously paced. And given the predictable plot, there's a diminished payoff in the end. Anyone who has seen *The Wicker Man* will know what's coming.

Those might seem like minor nitpicks, but collectively they serve to diminish the impact of the gorgeous visuals and strong performances. In the end, *Midsommar* is a competent slasher film with artistic ambitions that are never fully realized.

[embedded content]
Midsommar trailer.
https://arstechnica.com/?p=1525883

Spider-Man is back—but why all dressed in black?

Enlarge / New continent, new costume.
Sony Pictures

reader comments

53 with 37 posters participating

Share this story

It’s maybe no weirder than anything else in comic books that Peter Parker—a working-class teenager from Queens who is also Spider-Man—must have a closet the size of the one at Vogue. (It’s big. So I hear.) Because over his six-decade career in comics, television, and movies, this guy has had a lot of costumes.

His new movie, *Spider-Man: Far From Home*, showcases at least four: a baseline blue-and-red, a black superspy outfit, the metallic robot-arm-equipped armor he wore in *Avengers: Endgame*, and a nifty new red-and-black suit. Now, sure, that Beyoncé-like number of outfit changes could just be a play to sell more dolls (“action figures,” pfft). But it also embeds this third cinematic Spider-Man even more deeply in a long comic-book tradition. Costume changes illustrate character development. And the color of those costumes tells you something about who these characters are at any given moment—especially if those colors, like they do in most of *Far From Home*, include black.

For sure, Spidey’s standard *lewk* hasn’t really changed since Steve Ditko created it for the hero’s 1962 debut—a small spider emblem on the chest and a large one on the back. Red shoulders and torso, blue armpits and legs. Full face mask with big eyes. Some kind of web-embroidery. Webbed-red boots and gloves, thin enough (Ditko wrote) for the man to stick to walls. In the spiderverse, Pete acquires his powers from the bite of a radioactive (or, after more recent retcons, genetically engineered) spider, and then sews himself a costume and invents web-shooting bracelets. Pete’s a bullied nerd, and his kind of heroism is predicated on helping people even if they’ve been horrible to him. But he doesn’t just pull on a hoodie and yoga pants. He creates a symbol, albeit a DIY one. Great power, great responsibility, etc.

But why, true believers, is Spider-Man *blue*? It’s

controversial whether Ditko, Spidey's co-creator alongside Marvel Comics icon Stan Lee, intended the costume's legs and body to be blue or black. Comic production technology wasn't great back in the early 1960s—cheap, on crappy paper, with a four-color dot process that Georges Seurat would've appreciated. Comic book art used to often separate the jobs of penciler, inker, and colorist, and the blacks of the inking, while perfect for shading and outlines, don't show highlights well. You need them for definition, but white (which would really just be letting the paper show through) would've made the black look gray, or like reflective metal. So artists by convention used blue, like in Superman's and Wonder Woman's hair, or Batman's everything.

Ditko was a master of moody, noirish shadow, perfect for Spider-Man's creepy, more lithe design. But if you ran into Spidey in real life, would his costume be red and black? Or red and blue? Like a lot of '60s-era Marvel heroes, Spidey had a bit of darkness about him. Black wouldn't have been out of place. But when other artists, like Gene Colan or John Romita, took over, they played the blue up, and Spidey became a happier, primary-colored hero (though he was still plenty depressed in his personal life).

At this point you might ask: Why would a spider ever be blue? It's a relatively rare color in the animal world. The bugs and birds that do display blues tend to make them not from chemical pigments like melanin but with what are called structural pigments—photonic crystals, basically, that bend light into new, iridescent hues. Butterflies do it, and so do peacock spiders. Peacock spiders also manifest a structural "superblack," a none-more-black that looks utterly matte, almost dimensionless … kind of like a comic book panel, actually. In general, though, I recommend against thinking too hard about the biology of Spider-Manness. Like, why do Spider

people acquire powers but remain fundamentally human-looking? (With exceptions: In the 1970s, Peter Parker tried to develop a "cure" for his powers that instead gave him four extra arms sprouting from his torso. Even Peter didn't expect that one; forewarned was not four-armed.) As others have observed, being utterly faithful to the bit would mean Spider-Man would have multiple eyes and his webs would come out of his butt. With great power comes great response-in-the-booty.

[embedded content]
The trailer for *Spider-Man: Far From Home*
Color aside, the general outlines of Spider-Man's costume stayed pretty much the same, within the bounds of various artists' interpretations—Romita's later version was more muscular and bluer—for 25 years. The color black mostly ebbed away, except in the web pattern on the red parts of the costume. The 1960s TV show that introduced the "Spider-Man, Spider-Man" theme song also featured a much simplified, less webbed design. The 1970s live-action TV show suit aimed to be true to the comics, as did the various cartoons of the '80s and '90s.

But in the 1980s, things got weird. Over the course of a yearlong series called *Secret Wars*, Spidey acquired an alien-made all-black suit with a white spider logo, sparking a recurring black-and-white motif in Spidey costumes. (Production, printing, and art processes had improved by then.) Spider-Man in black was moodier and spookier; comics costumes tend toward that kind of visual determinism in general. Good guys wear primary colors. Bad guys wear secondary colors. Scary guys wear black.

The costume turned out to be an alien parasite; these things happen. Writer-artist Todd MacFarlane, who'd come to fame drawing a much more spidery Spider-Man with ginormous eyes and squiggly webs, was one of the creators who turned that scary black alien parasite costume into Venom, a new bad guy with fangs and a slavering tongue. (Heroes often get enemies who

are their costume-opposites, literally wearing their bad intentions on their sleeves. Superman has Bizarro; the Flash has Reverse Flash. Even Venom eventually got Anti-Venom, whose origin in a more just world would've been that of an alien parasite costume infected Venom's mother's sister. But no.)

The black costume sparked an efflorescence of alternate, special-use costumes for ol' Web Head—armors, disguises, high-tech camouflage with glowing bits, hybrids with other heroes and so on. A long arc about clones yielded a casual-day costume based around a sweatshirt; nerds do love their hoodies. Newer artists experimented with the darker, maybe-black of the Ditko era; I've always been partial to Jae Lee's version, for example.

The first two sets of Spider-Man movies—Sam Raimi/Tobey Maguire and Marc Webb/Andrew Garfield—largely hoved to the comic classic. The black lines around the eyes got bigger or smaller, more angular or less. The delimiting seams between red and black went linear or curvy. But with *Far From Home* (and its predecessor, *Homecoming*) the deal between Sony Pictures and Marvel Studios to integrate the third (!) spider-iteration into the main-line Marvel Cinematic Universe led to some less traditional costumes, just as Spider-Man's crossovers with other heroes in the comics have.

A crossover series called Civil War, the basis for the Captain America movie with that same subtitle, depicted Tony Stark making a high-tech suit with spidery arms that came out of the back—just like the suits Iron Man makes for Spider-Man in the movies. The comic version is much more red and gold, recapitulating Iron Man's colorways, but both served as visual and narrative reminders of ties between the two characters. And the introduction of Miles Morales, a parallel-universe Spider-Man, allowed artist Sara Pichelli to head off in a whole new direction—a black bodysuit with red webs around the upper torso and mask, a colorway Pichelli says she and Marvel chose specifically because it evokes that radioactive, bitey

spider, and because all-black hadn’t been possible for Ditko. “The new costume had to be as iconic as the classic one but with something new,” Pichelli says “It isn’t an easy job. It was all a matter of slight changes. In this case, ‘less is more.’ That’s why I preferred to subtract elements rather than add more.” The Miles in *Spider-Man: Into the Spider-Verse* wears a variation.

And when Spider-Man died and his arch-enemy Doctor Octopus took over his body—these things happen—Ock, declaring himself the “superior Spider-Man,” went for a red and black color scheme that evokes *Far From Home*‘s new one. Ock was a bad guy even when he was acting sort of good. The black made sense.

Even the stealthy black costume Spider-Man wears in *Far From Home* has comics precedent. In the early 2000s miniseries *Secret War* (no relation to the earlier one), Spidey again gets a black outfit. No aliens involved this time; artist Gabriele Dell’Otto designed secret-agent outfits for a bunch of iconic Marvel heroes, including Captain America and Wolverine.

But the stealth suit isn’t the only new ‘fit Spidey gets in *Far From Home*. To avoid spoilers, we won’t reveal the provenance of the new duds, but suffice to say they indicate his place in the new MCU. One, in particular, clearly shows Tony Stark’s influence on Peter Parker has taken root. There are lean, straight lines, metallic details. There are integrated web-wings and it’s chock-full of nanotech. It also forgoes comic-book blue for—of course—black.

This story first appeared on wired.com.

https://arstechnica.com/?p=1531345

Report: Microsoft still planning a low-cost, streaming-focused Xbox

reader comments

15 with 11 posters participating

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[embedded content]
At this year's E3, Microsoft had a lot to say about its high-end Xbox One successor (code-named "Project Scarlett") and about its previously announced (and newly demoed) Project Xcloud streaming gaming service. But the company was less forthcoming about long-standing reports of low-cost, streaming-focused Microsoft hardware that would bring Xcloud games to the TV easily.

In a new video, Thurrott's Brad Sams (who has a strong track record when it comes to reporting insider information from Microsoft) says that the streaming box is "still being actively developed" inside Microsoft despite the continued public silence from the company itself. "I'm hearing this project has not been killed and is being actively worked on."

According to Sams, Microsoft's streaming hardware would "make the [streaming] gaming experience just a little bit better than if it was playing from a TV or something like that." That's because the low-end hardware would itself have a "marginal amount of compute [power]" that would allow it to handle basic gameplay elements like movement and collision

detection locally, with minimal latency. “Everything else would just be streamed from Xcloud,” as Sams put it.

It’s an interesting theory, but as Sams and others have previously suggested it would essentially require splitting up games into two “slices”—one designed to run locally on low-end hardware, the other designed to be streamed from Xcloud’s high-end servers. That might help with perceived latency for the player, but it could be a major headache for developers used to single-system coding.

Still, Sams says his sources suggest Microsoft as a whole is becoming “really confident” in the potential of the Xcloud service and that this kind of streaming box could make it much easier to stream games to a TV at low cost. Sams estimates the hardware could come in as low as $60, or up to $80 with a controller thrown in. That would undercut the $130 price Google is asking early adopters to pay at launch for a Stadia controller and Chromecast Ultra hardware. But Sams says he’s not sure if Microsoft’s low-end streaming box would launch alongside “Project Scarlett” or if it will even see release at all in the end.

Sams’ report comes shortly after multiple sources suggested Microsoft has abandoned internal plans to release a lower tier of *local* gaming hardware as part of its next-generation console plans. The mid-tier console project, known internally as “Lockhart,” has now reportedly been placed on hold in favor of focusing on a single home-based successor to the Xbox One.

That tracks somewhat with Microsoft’s Phil Spencer talking about “the next Xbox consoles [plural]” at E3 2018, while only pointing to a singular “Project Scarlett” console at this year’s show. And Sams’ sources suggest that Lockhart has been phased out, in part because the Xcloud-based streaming box could satisfy price-sensitive gamers more effectively without confusing the market by offering a “strange middle ground.”

https://arstechnica.com/?p=1531337

Mordhau developer denies it was planning a “toggle” for diversity [Updated]

Enlarge / A bunch of white guys fighting with medieval weaponry in *Mordhau*.

reader comments

250 with 118 posters participating

Share this story

Since its launch in April, medieval combat sim *Mordhau* has been a surprise hit for freshman development studio Triternion, selling over a million copies as of last month. But the online multiplayer game’s use of exclusively white male avatars has troubled some players looking for a more diverse set of character customization options.

Triternion has said that it plans to add more avatar variety in the future, but the studio created additional questions around those plans in a recent interview with PC Gamer. In that piece, the magazine quoted *Mordhau* developers as saying they were considering giving players the ability to turn off the pending customization options on the client side, effectively re-homogenizing the look of the characters on their own displays.

In response to a question about “adding female playable characters and changing character’s skin tones,” PC Gamer quoted Triternion’s Mike Desrosiers as saying, “Whatever stance we take officially, some group of people are going to be upset with us. And so, ideally we’d put the power in the players’ hands and give them the option to enable and disable different things.”

Later, when asked again about “giving the option for players to disable” planned racial- and gender-based character customizations, developer Andrew Geach reportedly told PC Gamer, “Yeah, that seems to be the current thinking. It’s not set in stone, it depends how our community is in the future. Maybe if it calms down in the future, the game still has a lot of players, a lot of toxicity, a lot of racism, a lot of politics, everything, people argue in chat about all sorts of nonsense.”

Don’t change your plans for me

After that article was published Monday (but before it was updated with a more detailed transcription Tuesday), Triternion took to Twitter to deny it was ever considering those reported plans. “We do not, nor have we ever, had plans to add a toggle to hide other ethnicities or ‘disable characters that aren’t white’ in *Mordhau*,” the company tweeted. “Any claims to the contrary are false.”

Triternion’s tweet is somewhat undercut by an April forum post on the *Mordhau* Steam page. There, a developer and moderator with the handle “crush” wrote, “We are still looking into adding female characters post release as was promised… The realism complaint is valid, so when we add them we might add a simple client-side toggle (for both female and male characters) which would let you disable them.”

A careful parsing of all the statements involved suggests there might be some miscommunication or confusion over the

differences between a potential *gender*-based toggle and the possibility of a similar *ethnicity*-based toggle. As "crush" indicated on Steam, the former plays more directly into a complaint that having female avatars could somehow hamper the "realism" of the game's medieval setting.

That's an argument that seems to arise whenever women are added to combat-heavy games, albeit one that seems unconcerned with all the other obviously unrealistic elements that invariably crop up in such games. Concerns about historical "realism" didn't stop *For Honor* from successfully integrating female fighters into its medieval combat from day one. Triternion is also facing reports of rampant, unmoderated racism and other toxic behavior in its in-game chat and other player communication channels. Speaking to PC Gamer, Desrosiers seemed unwilling to put in the kind of strict, automated chat filters that other games have implemented to stem such behavior.

"If we take an official stance and we put an official filter list on all the words in chat, people will, first, find a way around it, and it might catch innocent words, or people might claim we're censoring," he said. "So we'd rather put the power in the player's hands [to mute problematic players]."

On Twitter, Triternion acknowledged that "as a small indie team, have a lot to learn when it comes to dealing with toxicity/racism in a large community." The company has promised an "official statement coming soon" on all of these matters, and we'll be sure to update you when it's released.

Update (July 3): In a more detailed statement posted on the *Mordhau* forums, Triternion attributed the confusion over this issue to a "misunderstanding" caused by Desrosiers and Geach's PC Gamer interview. These game artists are "both uninvolved with character development went into a verbal interview with minimal PR experience and ended up answering some of the questions in a misleading way," the statement reads, in part.

“The responses given were referring to the gender part of the questions, which were based off an old controversial ‘gender toggle’ idea, with the intention being to give the player options to play the game with only female characters, only male characters, or both,” the statement continues. “This concept was brought forth by one of our developers and posted prior to the game’s release as a response to a large number of heated debates regarding the topic of realism. The idea to give players this ability was simply a theoretical solution to a difficult problem and was never intended to be the official stance of Triternion on this topic.”

While this gender-toggle idea was briefly considered, Triternion said, it was soon dismissed in internal discussions “as it would undermine the customization players work hard to create,” according to the statement. Despite the “ill-informed” statements to PC Gamer, Triternion says “our official stance is that these toggle options are out of the question.”

https://arstechnica.com/?p=1531023

Nvidia refreshes RTX line: “Super” GPUs add performance at same MSRP

reader comments

87 with 55 posters participating

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- The Nvidia RTX 2070 Super. Coming July 9 for $499.
- Another peek, from head-on. You can’t see here that it requires both an 8-pin *and* a 6-pin connector to your PC’s power supply. That’s a leap from the 8-pin-only requirement of the original RTX 2070.
- The Nvidia RTX 2060 Super. Coming July 9 for $399. (This’ll only require one 8-pin connection to your PSU.)
- The Nvidia RTX 2080 Super. Coming July 23 for $699.

The rumors are true: nine months after the launch of the RTX 2070 and six months after the RTX 2060 arrived, both of these Nvidia graphics cards are getting retail upgrades. Behold: the RTX 2060 Super and RTX 2070 Super, coming to stores on July 9 for the same price as their previous numbered versions ($399 and $499 MSRP, respectively).

These will be followed on July 23 by the $699 RTX 2080 Super. Nvidia will continue selling the RTX 2080 Ti ($999) and RTX 2060 (marked down to $349), while the standard 2070 and 2080 graphics cards are already being phased out by Nvidia. (If you’re wondering, AMD has a big launch during this calendar period, as well: the Radeon RX 5700 series, coming July 7.)

We’ll have to wait to see what to expect from the 2080 Super, whose review hardware hasn’t yet landed in outlets’ hands. In the meantime, a last-minute shipment gave us a chance to put the RTX 2070 Super through a few tests ahead of today’s announcement. That helped us confirm some good news: Nvidia finally got an RTX card to the performance point worthy of a $500 investment (and, honestly, the card now runs neck and neck with the original RTX 2080).

More power, not necessarily more

efficient

For this new Super line, Nvidia went back to the original RTX cards and packed them with more computing cores (“CUDA cores,” in Nvidia’s parlance), more texture units, more streaming multiprocessors (SMs), and higher base and “boost” clock speeds. In the case of the 2060 Super, its VRAM count has jumped to 8GB, which has caught up to its siblings’ 256-bit memory interface while jumping to 448GHz memory bandwidth. The Super version of the 2080 gets a slight memory bandwidth uptick; the 2070 Super receives no memory-related boosts.

The biggest catch about the Super line is that this is in no way indicative of a new or more efficient process. While Nvidia is proud of the Turing line’s “performance per watt” measure, you’ll still need more wattage for each Super card than its non-Super version. It’s not a ridiculous amount, but if you’re already on the edge with your PSU of choice, be warned. (There’s one exception: the RTX 2080 Super advertises identical power consumption as its non-Super variant. We’re curious to see that in action.)

RTX 2080 Ti	RTX 2080 Super	RTX 2080	RTX 2070 Super	RTX 2070	RTX 2060 Super	RTX 2060	GTX 1080 Ti	
CUDA Cores	4,352	3,072	2,944	2,560	2,304	2,176	1,920	3,584
Texture Units	272	192	184	184	144	136	120	224
ROPs	88	64	64	64	64	64	48	88
Core Clock	1,350MHz	1,650MHz	1,515MHz	1,605MHz	1,410MHz	1,470MHz	1,365MHz	1,480MHz
Boost Clock	1,635MHz	1,815MHz	1,800MHz	1,770MHz	1,620MHz	1,650MHz	1,680MHz	1,582MHz
Memory Bus Width	352-bit	256-bit	256-bit	256-bit	256-bit	256-bit	192-bit	352-bit
Memory Speed	14GHz	15.5GHz	14GHz	14GHz	14GHz	14GHz	8GHz	11GHz
Memory Bandwidth	616GB/s	496GB/s	448GB/s	448GB/s	448GB/s	448GB/s	336GB/s	484GB/s
Memory Size	11GB GDDR6	8GB GDDR6	8GB GDDR6	8GB GDDR6	8GB GDDR6	8GB GDDR6	6GB GDDR6	11GB GDDR5X
TDP	260W	250W	250W	215W	175W	175W	160W	250W

A look at the above table is pretty cut and dry: more power across the RTX board. That's everything we wanted from the pricey RTX line in the first place, especially while we were left waiting for games to actually unleash their RTX-exclusive bits. To date, the number of games that employ such tricks via proprietary Nvidia tech (global illumination, ray tracing, deep-learning super-sampling) can be counted on your fingers.

What's more, the only RTX-compatible game on the market that I'd currently argue is a no-brainer, heck-yes upgrade is the newly modded version of 1998's *Quake II*. Thus, I wouldn't have blamed you for waiting for a better price opportunity to dive into the RTX line (according to Nvidia's public-facing statements, you were far from alone). The Super line might be the perfect opportunity to do so.

Without a comprehensive RTX testing suite at my disposal, I'm limited to some admittedly slim test results (also owing to a tight turnaround between cards arriving in-house and this embargo). But my early tests are telling enough. I put the RTX 2070 Super "Founder's Edition" up against my daily driver, an RTX 2080 Founder's Edition that I reviewed 10 months ago.

And I was shocked to discover something that Nvidia didn't mention in a nearly hour-long briefing about the cards: that the RTX 2070 Super is basically right there with the RTX 2080. Not identical, mind you, but the results are surprisingly tight for a $200 price differential.

- These benchmarks were performed in July 2019 on a testing machine with an i7-8770K and 32GB DDR4-3000 RAM. All "OC" toggles are applied automatically by the latest version of EVGA Precision X1.

The above benchmarks are standard issue for game testing at Ars, and they all see most in-game settings jacked up to near-max values at 4K resolution to guarantee as much of a GPU-bound testing environment as possible. *Grand Theft Auto V*'s

longest benchmark scene has a three-frame differential in both standard and overclocked versions. The RTX 2080 wins the *Hitman 1* showdown in all formats by roughly 7%, while *Assassin's Creed Odyssey* is a dead heat until both cards get an overclock.

Incredibly, by running EVGA's X1 Precision overclocking app (which plays nicely with Nvidia cards), I managed to get the RTX 2070 Super to *beat* its RTX 2080 sibling in at least one game: *Quake II RTX*, a game whose performance appears to be largely RTX-bound. That resulted in a roughly 5% performance lead for the 2070 Super with the game's RTX-exclusive global illumination perk turned on, both in "medium" and "high" RTX settings. But be warned: that is *not* based on a rigid, perfectly controlled benchmark test, so don't take it to mean the 2070 Super has a clear global-illumination lead on the RTX 2080.

$499 is still a pretty penny to splurge on a graphics card, of course, let alone one whose selling point revolves around a few proprietary standards. But this looks like quite the 2019 GPU. It compares favorably to the existing RTX 2080, which means it does marvelous things in 1440p and even 4K resolutions, while delivering RTX perks that should get PC players closer to truly fluid RTX gameplay scenarios in at least 1080p resolution.

For now, consider this an "impressions" post while we wait for the RTX 2080 Super to land in Ars HQ later this month. At that point, we'll see what exactly *its* new "$200 more" sales pitch will be—and we'll put more games and apps to the test, especially as AMD continues to nip at Nvidia's heels.

Listing image by Nvidia

https://arstechnica.com/?p=1530179

First trailer for Jacob’s Ladder reboot looks as spooky as the 1990 original

reader comments

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[embedded content]
Michael Ealy stars in *Jacob’s Ladder*, a reboot of Adrian Lyne’s classic 1990 horror film.
Over the last 19 years, Director Adrian Lyne’s 1990 art house psychological thriller *Jacob’s Ladder* has garnered a strong cult following for its unusual camera work, surreal nightmarish visions, and infamous twist ending. So it was a bit surprising to learn a few years ago that a remake was in the offing. Judging by the first trailer, this reboot is more of a re-imagining, preserving some of the original elements while offering a fresh twist ending.

The original *Jacob’s Ladder*, released in 1990, starred Tim Robbins as Vietnam medic Jacob Singer, whose unit is attacked in 1971. Watching his comrades fall, Jacob flees into the jungle and gets a bayonet in the stomach for his trouble. He awakens in a New York City subway and finds he’s now living in Brooklyn with his girlfriend, with no memory of how he got there. But he is increasingly haunted by terrible

hallucinations, sudden onset high fevers, and occasionally finds himself in an alternate reality with his first wife and young son, Gabe, who had been killed in an accident before the war. Is it side effects from an experimental army drug known as “the Ladder,” or something more sinister and supernatural?

The 2019 remake is intended to be more of an homage, bringing the story into a contemporary setting with fresh characters and similar themes. Per the official synopsis, “After losing his brother in combat, Jacob Singer returns home from Afghanistan—only to be pulled into a mind-twisting state of paranoia. Singer soon realizes that his sibling is alive but life is not what it seems.”

- Two brothers goin’ fishing.
  YouTube/Bloody Disgusting
- Jacob Singer (Michael Ealy) on his wedding day.
  YouTube/Bloody Disgusting
- Nicole Beharie plays Jacob’s wife, Sam.
  YouTube/Bloody Disgusting
- War is hell.
  YouTube/Bloody Disgusting
- Isaac Singer (Jesse Williams) breathes his last.
  YouTube/Bloody Disgusting
- Jacob is haunted by his brother’s death.
  YouTube/Bloody Disgusting
- A sense of being followed.
  YouTube/Bloody Disgusting
- Isaac looks very much alive.
  YouTube/Bloody Disgusting
- A sudden nose bleed hints that all is not well.
  YouTube/Bloody Disgusting
- Jacob experiences fleeting horrifying visions.
  YouTube/Bloody Disgusting
- A famous shot recreated.
  YouTube/Bloody Disgusting
- A metaphor for a shattered reality?

YouTube/Bloody Disgusting

- YouTube/Bloody Disgusting

What this remake won't do, apparently, is recreate the original twist ending. Screenwriter Jeff Buhler, fresh from *Pet Sematary* and SYFY's *Nightflyers*, shed some light on that departure in an interview with Rue Morgue back in February:

> *"The concept is really about the experience of coming home and readjusting, which is very present and poignant in the original film. Tim Robbins is a soldier who's readjusting to life and feels like a stranger in his own city and to his family, so getting those concepts out there and really living in that space in our film was important. Then we came up with a cool twist that's different from the one in the original, but has that same spirit: You're following this story with these characters, and then all of a sudden everything gets flipped on its head, and you're like, 'Whoa! Things are different than I thought."*

The focus on the relationship between the two brothers is front and center in the trailer. We hear a voiceover of a therapist encouraging Jacob (Michael Ealy) to open up about the issues the two siblings faced—most notably an intense competitiveness. We see Jacob on his wedding day to Sam (Nicole Beharie), and a jealous Isaac (Jesse Williams) taunting that he'd "been there" first and decking his brother. But there is also a fierce love; both served in Afghanistan, and Jacob was devastated when Isaac was killed, blaming himself.

The thing is, Jacob never actually saw his brother's lifeless body. And then Isaac shows up in the street one night. "We thought you were dead," an incredulous Sam says when she sees him. Isaac replies, "Maybe I was." But is it really Isaac? And if so, is it possible that something supernatural followed him back? Because Jacob is having fleeting hallucinations of

demons coming after him.

There may be a new twist ending, but the final line we hear in the trailer actually echoes dialogue from Lyne's original: "The only part that burns in hell is the part of you that refuses to let go. You will see devils tearing your life apart."

Jacob's Ladder is slated for release on August 23, 2019.

Listing image by YouTube/Bloody Disgusting

https://arstechnica.com/?p=1530381

Rumor has it there's a cunning plan to bring back Blackadder for fifth season

Enlarge / Rowan Atkinson is Capt. Edmund Blackadder and Hugh Laurie is the dimwitted Lt. George in *Blackadder Goes Forth*, the fourth season set during World War I.

reader comments

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The BBC's quirky-yet-classic 1980s comedy series, *Blackadder*, might finally have a long-hoped-for fifth season, according to British tabloid reports. However, such rumors have circulated

before, and there's been no official announcement confirming the news just yet.

I have long adored this oddball series and have frequently revisited the episodes via DVD over the years. (It doesn't take long; there are only six episodes for each of the four seasons, plus a handful of specials.) The show follows its protagonist, one Edmund Blackadder (played to perfection by Rowan Atkinson), through different historical eras in England: the Middle Ages, the Elizabethan era, the Regency era, and World War I.

Blackadder starts out as a bumbling prince (the younger son to King Richard IV) and proceeds to become both smarter and lower-ranking as the seasons progress: a nobleman in Queen Elizabeth I's court in season two, a butler to Hugh Laurie's foppish, dimwitted Prince Regent in season three, and a captain on the Western Front in season four. He is a knight in *The Cavalier Years* special and a shopkeeper in *Blackadder's Christmas Carol*, a Dickens parody set in Victorian England.

Blackadder has always straddled that fine line between being slyly silly and wickedly smart, drawing abundantly from British cultural history for its frequently broad humor. Who can forget Edmund's brief stint as a corrupt Archbishop of Canterbury and that infamous Black Russian codpiece? How about when he was kidnapped by a Spanish torturer who doesn't speak English and engaged in an elaborate game of charades to communicate? He once accidentally burnt Samuel Johnson's dictionary, pretended to be the Scarlet Pimpernel, and stood trial as the Flanders Pigeon Murderer. The final episode of season four ("Goodbyeee") proved uncharacteristically moving.

His pot is blacker than his kettle

There haven't been any fresh *Blackadder* episodes since the 2000 one-off, *Blackadder Back and Forth*, and fans have longed for a fifth season ever since, with their hopes continually

dashed. But now it looks like it might actually happen. Atkinson, Tony Robinson (who played the dogsbody Baldrick), Stephen Fry (Melchett), and Laurie have reportedly discussed reprising their roles and are eager to do so. Fresh episodes are supposedly being written.

So just what might a fifth season of this offbeat comedy series be like? Co-writer Richard Curtis (who wrote the new Danny Boyle film *Yesterday*) has said that the original series "was a young man's show, criticizing older people, saying how stupid those in authority were." So this time around, per reports, Blackadder will be much older: an aging lecturer at university, perennially irritated by his young students. Let's hope the new season continues the tradition of tailoring the theme song's lyrics to each episode.

Of course, to quote Blackadder himself: "Am I jumping the gun, Baldrick, or are the words 'I have a cunning plan' marching with ill-deserved confidence in the direction of this conversation?" One shouldn't place *too* much confidence in a couple of tabloid reports. Barring an official announcement, all we can do is wait and hope that this turns out to be a plan so cunning you could put a tail on it and call it a weasel.

https://arstechnica.com/?p=1530273

Stranger Things without Spoiler Things: It's dark,

different, and still delightful

reader comments

6 with 6 posters participating

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[embedded content]
The latest trailer for *Stranger Things S3*
When Netflix's *Stranger Things* initially burst onto the scene in 2016, the surprise summer hit struck a national nerve. There was, however, one small, repeated bit of pushback: *Haven't we done this before?*

The bikes. The supernatural. The kids saving the world with Walkie Talkies in hand. And if nostalgia indulgence, built upon allusions and influences from King and Spielberg, initially turned off some viewers, season two may have turned the repellent up to Eleven (ahem) by doing the sequel thing. The series' second run had the same primary victim, another D&D-inspired type of lurking evil, and one more kids-save-their-friend-after-a-science-lesson bit.

Now two years and a *Thrones*-ian amount of anticipation later, the *Stranger Things 3* premiere arrives in mere days (July 4). Netflix has already shared the season with some TV critics alongside an extensive list of 17 embargoed facts (that an editor graciously read through so I could stay as ignorant as Hawkins adults while a dark plague sneaks up on their small town). After previewing the first two episodes this weekend, there's at least one specific that needs to be shared right

now: any fears of a stale sequel can be put to bed. It’s a strange new world in Hawkins.

- Dustin’s friends welcome him home.
  YouTube/Netflix
- Chief Jim Hopper just wants everyone to be safe.
  YouTube/Netflix
- We are here for Steve (Joe Kerry) bonding with Dustin.
  YouTube/Netflix
- Nancy (Natalia Dyer) and Jonathan (Charlie Heaton) are troublemakers. In a good way.
  YouTube/Netflix
- Mayor Kline (Cary Elwes) is proud of the new supermall he’s brought to Hawkins.
  YouTube/Netflix
- Eleven and Max glam it up.
  YouTube/Netflix
- A supernatural harbinger.
  YouTube/Netflix

Hawkins: The teen years

First and foremost, Will Byers (played by Noah Schnapp) may soon relinquish his place within TV’s “most tortured character” pantheon (have fun leading the way, *Chernobyl-Mad Men-The Terror’s* Jared Harris and everyone on *The Handmaid’s Tale)*. As trailers have indicated, Will finally seems to avoid the attention of the supernatural (at least initially) as the Upside Down powers-that-be ponder grander ambitions. It can feel like a small thing, but such a tweak could lead to drastic change in terms of scale. Compared to the relatively small tasks at hand in S1 and S2 (“Save Will; have Eleven close the portal”), new targets could mean more danger, which could provide a problem (or problems) a handful of kids genuinely can’t solve alone.

Schnapp, however, doesn't necessarily get a whole new range of character to play with in S3. Without getting into spoiler territory about the plot, Will assumes the role of "teen boy who isn't ready to move forward into teen stuff" among the group, and constant cries of "Can we just play D&D now?" may feel a bit one-note over time. Early on, Eleven (Millie Bobbie Brown) also seems a bit stilted by her character's past, as her attempts to live teen girl life (mall time, disputes with parents, etc.) can be hampered by the fact she's still very much learning the English language after a childhood spent in the lab. But past season favorite pairings like Hopper (David Harbour) and Joyce (Winona Ryder) or Steve (Joe Keery) and Dustin (Gaten Matazarro) still delight, and previously underutilized folks like the Wheeler parents (led by Cara Buono) or singularly-jerky brother Billy (Dacre Montgomery) have more to do.

Beyond any singular character, *Stranger Things* regains a bit of its edge, that twinge of darkness ultimately putting it in TV-14 territory per Netflix ratings. Through two seasons, I'd argue the scariest sequence the show ever aired remains the opening from S1E1, when an unknown entity picked off anonymous lab employees in a dimly lit corridor. Within the first two episodes of S3, *Stranger Things* offers bits of action that'll cause many to recoil.

This probably stems from a natural evolution: the cast has aged (on screen and off), and the show needs to keep up. On the lighter end, this means more nods to Good Ol' Fashioned Suburban Youth™ (hanging at the mall, neighborhood pool time, fumbling through teen romantic relationships, puberty). On the darker end, it means more real-world truths seep into idyllic Hawkins like Demogorgons have previously. It's not just schoolyard bullying this time. S3 incorporates themes like sexism, small town America's economic decline, and teen rebellion.

- From left to right in 2016: Lucas (Caleb McLaughlin), Mike (Finn Wolfhard), Eleven (Millie Bobby Brown), and Dustin (Gaten Matarazzo).
  Anna Armatis / Netflix
- Bloodied but unbowed for S3.
  YouTube/Netflix

Luckily, just because the show appears to be growing up doesn't mean all the youthful fun has been abandoned. Our heroes hang at the mall, ham radios are deployed, and Jim Croce blares. S U R V I V E's Kyle Dixon and Michael Stein maintain the series signature sound while creating a few earworm-y variations on old themes. And the show's knack for visual sequences (shown off in things like Eleven's pseudo-Western showdown with Mike's bullies in S1) appears intact; growing into Netflix's perhaps most important / popular series may have increased the VFX budget, too.

Perhaps best of all, *Stranger Things* seems a little more kinetic this go-round. Yes, the first episode includes some necessary table setting just like its S1 and S2 predecessors, but S3's happenings get put into motion *fast.* A slightly condensed episode count overall (back down to eight episodes after nine in S2) hints at the action around Hawkins coming fast and furious this time.

Based off the strength of *Stranger Things* early season, all the tie-in novels and real-life carnival takeovers feel warranted. The most fun show of 2017 is a threat to do the same in 2019. Our heroes likely have some growing pains ahead, but this series has matured smoothly.

Editor's Note: Look for full reviews of Stranger Things 3 on Ars over the next few weeks.

Listing image by YouTube/Netflix

https://arstechnica.com/?p=1529657

With Darkness on the Edge of Town, the Stranger Things expanded universe begins

reader comments

17 with 10 posters participating

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- Behold, *Stranger* than fiction.
  Nathan Mattise
- Author Adam Christopher's work here is part of the official *Stranger Things*' canon.
  Nathan Mattise
- How many book jackets have the Netflix imprint these days? Probably more than we realize.
  Nathan Mattise

Back in the summer of 2016, Netflix wasn't Netflix, TV Industry Conquerer™ just yet. Long before *Russian Doll, The Crown*, or choose-your-own adventure bonanzas, Netflix made a bunch of "eh" originals following their initial *Orange Is The New Black/House of Cards* splash. But then, the company's "green light all the things" strategy struck unexpected gold with an '80s adventure homage set in fictitious, rural Indiana. Suddenly, pulsing vintage synths could be heard everywhere.

A few years can really make all the difference. Entering 2019, maybe only *Game of Thrones*' final season had more hype within the TV landscape than *Stranger Things'* two-years-in-the-making

third season (and we all know how things went in Westeros). And new-school Netflix has leveraged this anticipation in a very old school way: tie-in novels. A hallmark of beloved franchises from *Star Wars* to *Star Trek,* a handful of "Official *Stranger Things* novel" offerings have arrived this spring and summer to satiate rabid fans ahead of a July 4 S3 premiere. But none immediately sent us to the "pre-order" button faster than author Adam Christopher's *Darkness on the Edge of Town,* an old-fashioned crime novel featuring Chief Jim Hopper's pre-show adventures.

Is this another kids vs. D&D villain story?

Released at the start of June, *Darkness on the Edge of Town* takes place back in 1977 within a pre-Giuliani gritty, grimy, and gang-y New York (a setting that may be familiar to any fans of HBO's *The Deuce* as the most recent of many fictional examples). The country dealt with Vietnam fallout, the city dealt with crime headlined by the Son of Sam killer, and fictional cops like Hopper dealt with internal monologues about war changing people, the nature of good and evil, or how doing one's job may be the only shot at cleaning up the city.

Hopper came to New York because post-war life in Hawkins simply felt too slow, and his young family (wife Diane, daughter Sara) yearned for more adventure. Alongside his new partner, Cuban-American Detective Rosario Delgado, adventure falls squarely in their laps. A new serial killer appears to be rampaging the city in the shadows of the Son of Sam, stabbing victims in the chest in some ritualistic way and leaving only a white slip of paper with a different shape at each crime scene. The chief needs Delgado and Hopper to solve this one not only fast, but quietly—the city can't take another looming serial killer.

From there, well, this is *Stranger Things*-adjacent

storytelling, so things don’t quite go as smoothly as either detective may hope. The FBI makes an appearance, as do gangs drawing equal inspiration from the US military and religious cults. This also being a pre-modern technology crime story, someone may even have to go undercover at some point. On the sliding villain scale of a Mind Flayer to Dr. Brenner, the evil here decidedly resides within the human realm. Perhaps as a result, the stakes feel a little more real, a little more dangerous. As Hopper’s thoughts put it at one point, “There had been deaths—and there were more to come.”

Enlarge / OK, we’ll follow you into the meatspace paper world, Chief Hopper.
Anna Armatis / Netflix

Not new, but well executed (like *Stranger Things?*)

As a fan of fiction that weaves historical fact into its world (see *Mad Men‘s* JFK episode or *Deutschland 86*‘s on the Berlin discotheque bombings), Christopher hits a lot of sweet spots in *Darkness on the Edge of Town.* On the lighter end, readers spend time at Tom’s Diner and hear everyone’s opinion on *Star*

Wars. And on the more plot-relevant end, Vietnam ramifications, Son of Sam fears, and pop culture's favorite historic urban power outage all gracefully work their way into Hopper's story.

This ability to blend the known and the new kind of mimics the character work Christopher has to do in *Darkness On The Edge of Town.* David Harbour has made Hopper into a very distinct, known entity through two seasons of *Stranger Things,* and Christopher can't really deviate from that. Hopper needs to be tough and capable, but also wry and annoyed by things like bureaucracy or privilege. Conveniently, those traits work as well for a hands-on NYC cop as they do a small-town police chief. You can hear David Harbour in this dialogue and imagine him lumbering through various action sequences. (Which is good, since Hopper remains the POV character for an overwhelming majority of the book, relenting to Delgado, Diane, and one or two others only on occasion.)

But overall, the book offers very little overlap with the established *Stranger Things* universe—hints of supernatural elements never become as explicit as a demogorgon, and facts we know from the TV series (for instance, that Diane and Hopper ultimately lose their daughter *and* their marriage) aren't planted as seeds here. The only major overlap comes from the book's framing device: Hopper recounts this big case he tackled as a story for Eleven when they're snowed in one Christmas. The book handles this by intercutting chapters in Hopper's mid-'80s Indiana cabin with action back in 1977 NYC.

It'd be easy for this to grow cumbersome over time—*just tell us what happens in the damned case, Hopper!* But fans of the show will likely be delighted to re-enter the rhythm of these two every so often. Like Hopper himself, these "present-day" interactions immediately take you back to Netflix memories of the two beloved characters sharing stacks of Eggos. El never hesitates to ask a question about what would be common knowledge to others ("A cereal killer?"), and Hopper has a

patience and care in what he tells Eleven that he didn't always display as a cop one decade earlier. For what little *Stranger Things* mirroring must take place, Christopher nails it. (Perhaps that's not a surprise: Christopher worked closely with Netflix, and he's an experienced adapter of beloved pop culture entities, having previously written tie-in novels for things like the *Dishonored* game franchise and *The Shield.)*

Tonally, the book hews closer to *Dirty Harry* or *Serpico* than it does *Kindergarten Cop* or *Miss Congeniality*—this investigation and case are *serious*, even if Hopper sometimes likes not to be. But *Darkness on the Edge of Town* never overburdens its readers with detail and keeps its sometimes complicated subjects (organized crime and brutal murder, PTSD and the toll of war, inequality between economic classes and racial groups in 1970s NYC) simplified through the action-oriented lens of Jim Hopper. This isn't Hopper in *The Wire,*—it's more of a really enjoyable *Law & Order* ride.

Darkness on the Edge of Town may not enhance your understanding of the show to date in the way something like *Mr. Robot*'s *Red Wheelbarrow* was meant to, yet it does hint at one thing for *Stranger Things S3.* This franchise may have sneaked up and surprised Netflix in S1 and S2, but not anymore—the streaming giant *knows* this could be its most high-profile original at the moment. New marketing tie-ins with Coke and Nike (and freakin' amusement park takeovers in California and New York) indicate an even bigger internal push than in years past, and Netflix has been quite comfortable making and taking *Stranger Things*-ish clones or related riffs on the kids' adventure genre within the last year. This may be among the first *Stranger Things* tie-in novels, but it won't be the last. (In fact, while this book would likely be fine for younger readers, Netflix already has a YA-oriented tie-in centered on Max's backstory pre-Hawkins and an Eleven prequel focused on her scientific experiment upbringing.)

If this plays out well and the *Stranger Things* expanded universe (STEU?) becomes A Thing™ to navigate in the coming years, at least *Darkness on the Edge of Town* provides a roadmap. These characters can work across genre in less supernatural scenarios, so long as creators maintain this world's delicate balance of action and humor, nostalgia and twists. Here's hoping *Stranger Things 3* keeps up the momentum next week, at least enough to bring us the Steve and Dustin college road trip story (comic!) we deserve next summer.

Listing image by Nathan Mattise

https://arstechnica.com/?p=1526247