Why We're More Connected Yet More Divided: How Digital Networks Fragment Society

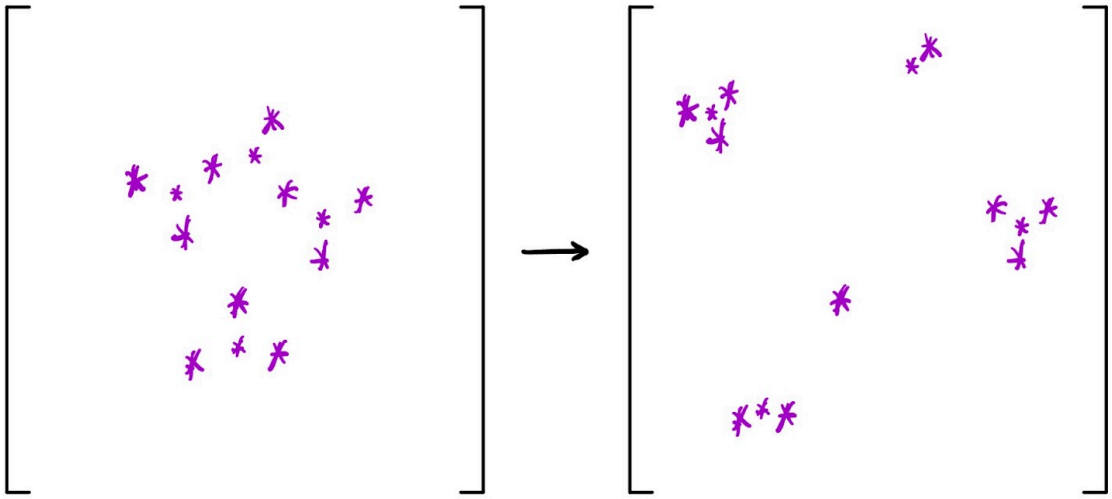
Standing on a crowded bus, I lift my neck for a second and survey the other passengers. Craned necks fill my purview. They're all grabbing for the latest updates deep in their networks. We're living in a paradox where technology touts increased connection while it disconnects us from the real world and each other's physical presence.

The same thought crests and hits the shore of my mind when I see parents shake their heads at the news constantly pouring from their devices as they cross their arms and huff, "It makes absolutely no sense. How–*why*–would you ever believe *that?*"

Yet, while we stay glued to our screens, a hum of discontent with the world around us, with the digital networks, seems to vibrate everywhere. People recommend digital detoxes, information diets. Just yesterday, I overheard two friends in a bookstore gushing about another friend that deleted TikTok. "Yeah, and when she needs a fix, she logs in on her computer. But that extra step makes it not addicting!" "That is *so* smart. I should really delete TikTok for like, a week."

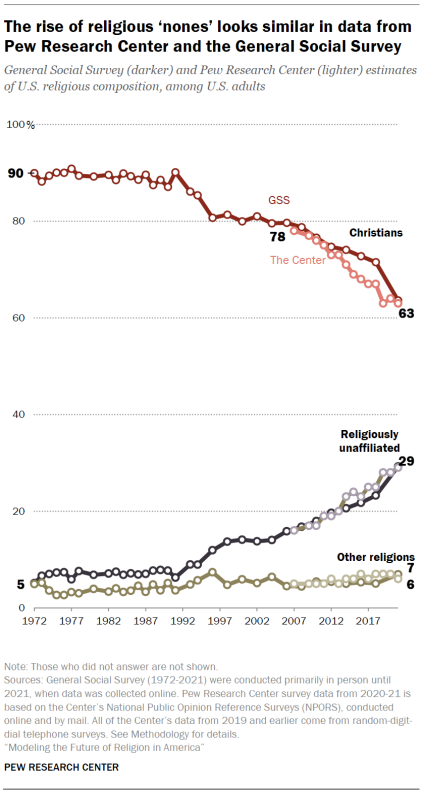
The online world pulls us away from real and physical interactions with the world and people around us. This crystallized in my mind as a picture of chaos: liquid globs dispersing into a gaseous state. In words—**technology today increases societal entropy**.

What does societal entropy mean? It's a term I've had floating through my head best accompanied by this picture:



Remember entropy from high school science? It's a measure of disorder. It's the tendency of things to move from order to disorder. Imagine your room. If you don't exert energy to keep it tidy, it *will* become a mess. Today's jacket, yesterday's water glass, that paper bill you meant to pay and file. Just me? So systems naturally move toward chaos unless energy is input to maintain organization.

More recently, the lack of community centers has plagued my mind. What happened to accessible third spaces? Especially for emerging adults (people in their 20s-early 30s). Religion is on the decline (see chart below), neighborhood groups seem a thing of the past (Nextdoor anyone?), and volunteer groups are hard to come by and rarely encouraged. Political and civic participation ebb and flow with few people actively dedicated to a cause for the long run. All in all, organizing online is easier, cheaper, and can reach more people.



U.S. adult Christians have steadily declined since the early 2000s while those religiously unaffiliated have steadily increased starting around the same time. [Source]

Sitting down to finally research and connect these observations, the idea of social capital arose.

In *Bowling Alone* (2000), Putnam describes social capital theory as the idea that *social networks have value*. He defines social capital as "the connections among individuals," encapsulating "social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19). To wrap your head around the concept, consider Putnam's two other examples: a screwdriver as physical capital, or a college education as human capital. These forms of capital add value to one's life. And while the economic productivity-add is at the forefront, Putnam argues that social capital especially aids fulfillment, builds trust, fosters belonging, encourages civic participation, and improves overall well-being. These attributes are invisible threads tying communities together and making life richer and more meaningful.

And I don't know about you, but when I read through that list, it feels like a fantastical wishlist. They're values friends and I have debated long into the night on how to find. They're all values we've wished society had more of after yet another breaking news alert.

Our hyper-efficiency focused economy may scream at us to increase productivity, but no matter how much caffeine I pump into myself, at the end of the day, I'm still counting sheep in a field where I hope I'll stumble into the rare Pokemon of fulfillment, trust, belonging, civic engagement, and long-term well-being.

"But wait—don't we have more social capital than ever? I have 1022 hard-earned followers. Surely that counts for something?" Yes! We are in a time of abundant connection. Yet, it feels like there's been movement away from those values of meaning. Turning to Putnam to explain, he breaks social capital into two critical types: bonding and bridging.

Bonding social capital reinforces identity. It's an exclusive, inward-looking form of connection such as a nuclear family, a cultural dance troupe, country clubs, etc. These groups help you "get by" especially in oppressive situations through solidarity and specific reciprocity. Putnam suggests they function as "sociological superglue."

Bridging social capital connects people across social divisions. Groups are inclusive, outward-looking ways to build broad networks such as service groups, diverse faith groups or interfaith councils, alumni associations, etc. These groups help "get ahead" by building trust and unlocking resources and opportunities that wouldn't exist in a homogeneous circle. Putnam suggests these groups provide "sociological WD-40."

Putnam's 2000s research concludes that social capital in the United States started sharply declining in the 1960s. He used seven measures as proxies of social capital: political participation, civic participation, religious participation, workplace networks, informal networks, mutual trust, and altruism. On all seven measures, the declining pattern remained consistent. Specifically, bonding capital remained relatively stable, but bridging capital plummeted. Americans became less involved in collective life. The title, Bowling Alone, forms his central metaphor: while bowling participation increased, league bowling dramatically declined; Americans were literally "bowling alone" rather than in organized social groups.

"The dominant theme is simple: For the first two-thirds of the twentieth century a powerful tide bore Americans into ever deeper engagement in the life of their communities, but a few decades ago—silently, and without warning—that tide reversed and we were overtaken by a treacherous rip current. Without at first noticing, we have been pulled apart from one another and from our communities over the last third of the century." (p. 27)

Putnam identified four statistically significant correlations: generational change, changing TV habits, urban sprawl, and time and money pressures. Putnam's analysis, ending in 2000,

left 15% of social capital decline unexplained. The timing suggests early internet adoption may have contributed to this gap, a trend that has only accelerated in the algorithmic age. At the time, Putnam found that the only leisure activity associated with lower social capital was watching commercial TV (p. 63, 229, 283, 302). TV encourages passive, individual consumption instead of encouraging active participation. Today, we see this pattern amplified. Individual, on-demand consumption is the norm.

We glean this feeling of individualism from digital tech over time, but on the surface, digital *feels* active and social. We think we're building community when we're consuming content in isolation, feeding into algorithmic fragmentation. This incongruity makes digital tech more insidious than the upfront passivity and isolation TV brings.

Putnam quotes T.S. Eliot by saying that neighbors escape to their TV to "listen to the same joke at the same time, and yet remain lonesome" (p. 217). Nowadays, that guaranteed connection of sameness has evaporated. You can sense how we as a society crave for those moments of shared connection whenever they do come around. For example, the whole internet seemed tuned into Love Island this summer, serving as common fodder to discuss and connect. Album drops like Taylor Swift's *Life of a Showgirl* also aid moments of collectivity.

This collectivism consistently wanes as the internet matures, instead solidifying individual optimization. Just look at your feeds and the way you interact with social networks today compared to ten years ago. Today you have your TikTok "For You" feed, your Twitter feed, your YouTube recommended. People you elected to follow no longer compose the majority of these feeds. You don't even need to follow anyone to produce a well-tailored feed. Today, personalized feeds are idea and content-first. Even TikTok touts "likes" as the prominent metric—no longer "followers."

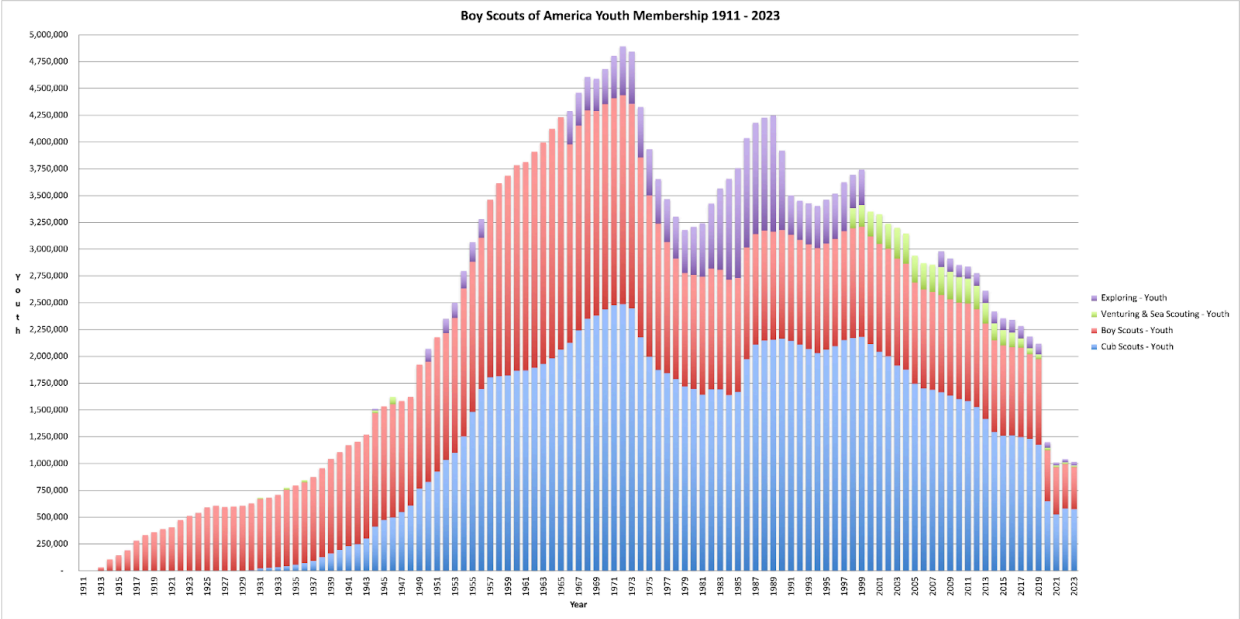
We're cutting people out and hyper-isolating ourselves.

It's no surprise we're living in an epidemic of loneliness. As we as a society trend toward no group participation, keep in mind Putnam's finding: if you belong to no groups, making a change to join and participate in one group cuts your odds of dying the next year *in half* (p. 331). That's a whole lot simpler than exercising regularly, losing weight, or quitting social media!

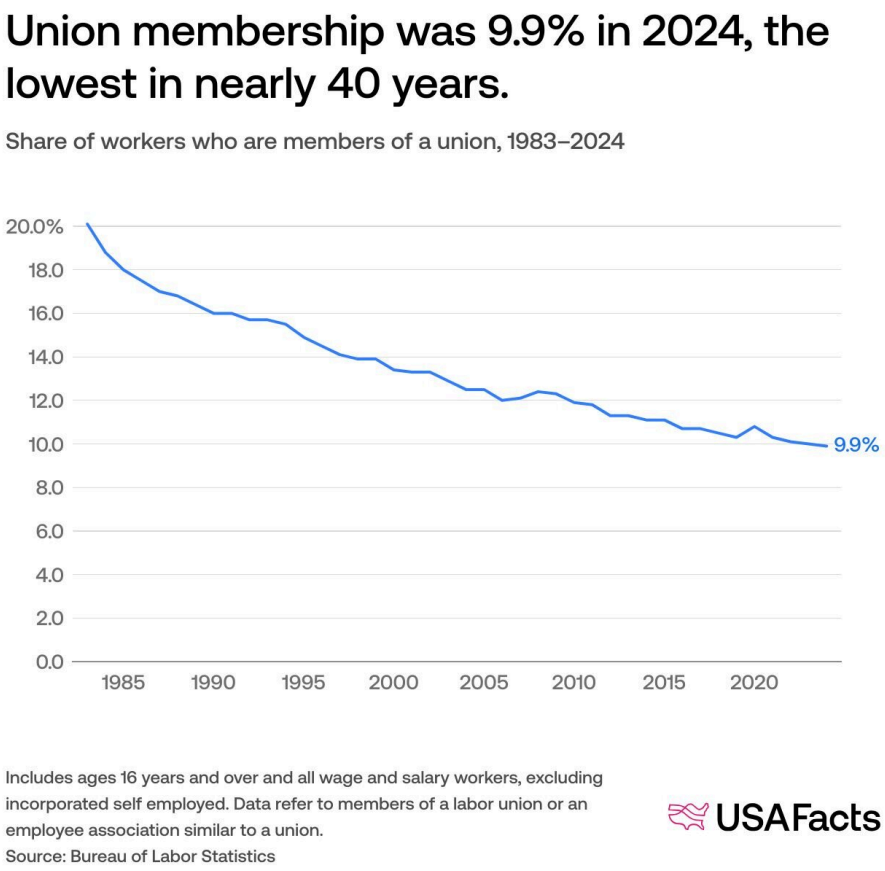
We've operated under this guise that digital networks bring us together again for the first quarter of the twenty-first century. Yet, statistically speaking, we see drastic declines in religious attendance (see chart above), youth service groups (following chart), workplace

unions (subsequent chart), etc. Some may see this drop in membership and think, “good riddance.” If that’s your reaction, it’s a signal of where these groups are headed.

But if we take a step back and set aside the ideologies, all of these groups serve to bring people together across boundaries. Religious groups connect people of different ages, walks of life, and opportunities. Youth service groups connect kids to different aged kids and various aspects of their community. Workplace unions connect workers across diverse backgrounds. However, we have witnessed a decline in membership over the past 40 years. E.g.



Boy Scouts and related youth group membership has rapidly declined since the 60s, seeing a brief increase in the early 90s. The declining trend re-arose and has remained consistent since the 2000s. Notice the sharp drop due to COVID around 2020. Source



Workplace union participation has steadily declined since the 80s. In 2024, union membership saw the lowest rate in nearly 40 years. Source

So, how has our social capital really changed with online networks?

With the bonding vs. bridging distinction in mind, consider your digital communities: think about that YouTuber you can't miss a video from, or that niche Reddit group you visit, or even your TikTok feed, your Twitter feed. Even as just a consumer, you're a part of those communities. Do you find that these groups mostly include people and ideas you're already comfortable with or people and ideas that *seriously* challenge your perspective?

I'd bet the former.

This disparity suggests an imbalance between bonding and bridging social capital when it comes to digital spaces. It's hard to perceive this imbalance without critically thinking beyond the surface of what social companies advertise. Social networks sell connection and paint the rose-tinted picture of connecting across boundaries. Take Facebook as an example. The company's slogan and advertising evolved from "make the world more open

and connected" to the more positive stance of "give people the power to build community and bring the world closer together" in 2017 (source), back to an unopinionated, "build the future of human connection" with the 2021 Meta rebrand (source). The nod toward open connection sings of bridging social capital (inclusive networks). "Bring the world closer together" exhibits bonding and bridging: togetherness suggests sociological superglue, while the trust needed to come together hints at bridging networks.

The accompanying ad campaigns make you internalize and believe these slogans. The diverse, (bridging), group meeting for a pick-up basketball game, a neighborhood coming together to volunteer (bridging!), or hobbyists of all ages (bridging!!) coming together to work on projects.

Then, why does using these products dig an ever-deeper pit of unfulfillment? For one thing, anonymity allows you to pose and curate your image. You can exclusively reinforce any part of your identity as you please (e.g. urban gardener, hard-core Swiftie) without advertising other features (e.g. socioeconomic status, unpopular opinions) that might lead to connections across social divisions. The former, identity reinforcing groupings elicit solidarity and comfortable connection. They're generally easy to break into. *You don't need to exert much energy* at all to feel like you've found people with ideas that just click.

You also don't need to create or interact to feel the connections. I'd like to think I'm a weird case as I'm most frequently a pure consumer—I don't create, and I rarely interact (via likes, comments, etc.)—but that's actually the vast majority according to the 1% rule; On collaborative websites, there's roughly a 1-9-90 ratio of creators to interactors to consumers.

1% of users exert the majority of energy to create some sense of informational order so that 9% of users can exert a slight nudge of discourse while 90% of us kick back and watch chaos unfold.

Companies ensure 99% of us will tune in time and time again by optimizing engagement metrics. Even if we don't interact *with* content, we provide insurmountable engagement data. That time you briefly slowed your scroll to catch a chicken nugget dog jumping off a dock at full speed, or when you let a TikTok play just a hair longer because the song's been stuck in your head for days, that's all data that media companies track to help tune an algorithm to surface the best information for your eyes. Companies optimize for clicks, shares, and time spent on content because that keeps you online now, draws you back in later, and overall, increases the amount of ads you see allowing the company to harvest more data, and thus, more money.

Algorithms aren't inherently evil, though. By definition, an algorithm is just "a process or set of rules to be followed in calculations or other problem-solving operations." For example, sorting algorithms solve sorting a group. Different algorithms optimize for different scenarios: mergesort provides predictable performance and stable ordering while insertion sort provides efficiency for very small or nearly sorted lists. There's even bogosort which randomly shuffles a list until it's sorted: incredibly dumb and inefficient, but effective for laughs or educational purposes.

Companies train prominent algorithms to optimize for engagement since that's what makes money in the current climate.

Content that confirms one's views or sparks anger or anxiety drives engagement the most effectively (source). Content that validates our beliefs affirms and draws us deeper to our chosen communities (reinforced bonding). Content that provokes us causes us to search through the comments seeking comfort of agreement (high engagement and bonding tendencies). Heated debates may arise, but they're exactly that: hot and contentious. There's rarely room for understanding because we're each too busy defending our turf.

These dynamics reinforce bonding social capital: we cluster with those who think like us, finding solidarity and support in our echo chambers. Fractured realities emerge as an unintended byproduct of platforms rewarding this insular behavior. We've formed distinct groups with less intermingling, less exposure to new ideas, and fewer opportunities for genuine bridge-building across divides. The profit-seeking optimization drives societal entropy as a consequence.

Researchers have documented this pattern for over 15 years, finding that algorithmic mediation (i.e. algorithms as gatekeepers, they shape our experience online) consistently favors bonding ties over bridging connections (Lopez-Vargas et al. 2022, Smith 2011, Smith & Giraud-Carrier 2010). This isn't a new finding, yet we've only amplified our behaviors.

All this goes to show that digital technology accelerates societal entropy by making echo chambers effortless while allowing cross-group connections to atrophy. This fragmentation threatens the fundamental mechanisms that make society function, and we need to deliberately invest energy in uncomfortable, bridging connections to counter this trend.

While we, individually, don't exert much energy to find bonding communities online, digital networks exert copious amounts of energy into supporting bonding communities. That energy helps bonding communities maintain organization (constant or reduction in entropy). However, on the bridging side, neither individuals nor networks are exerting

energy. In fact, optimized engagement algorithms seed conflict which energizes movement in bridging communities *toward* disorder. As social networks help communities come together, that exact force also pushes people apart from others. The lack of energy contributed to supporting bridging communities means movement toward chaos: communities become spread further and further apart, making it harder and harder to reach across the aisle and build a bridge.

Digital networks accelerate the trend Putnam identified by making it easier to find highly specific affinity groups while reducing serendipitous cross-group encounters.

These patterns of fragmentation and insularity have real consequences for the health of our communities. If we want a cohesive and functional society where we can translate aspirations into reality, we need to grow the connective tissue that bridging social capital provides. Putnam argues social capital supports a cohesive society through five mechanisms:

1. **Collective Problem Solving** aids community conflict resolution through decreased opposition between parties.
2. **Economic Efficiency** improves since trust reduces transaction costs and enforcement needs.
3. **Democratic Quality** improves civic institutions as awareness of mutual connectivity widens.
4. **Information Flow** accelerates, improving education and economic production.
5. **Health and Happiness** improve since human contact provides psychological and biological benefits.

Without deliberate communal energy, these mechanisms fall apart. Information flow may be abundant today, but without trust, all that information just clouds our ability to lean into discomfort and exert energy to create order. The individual choice that arises with technological conveniences continues to drive this fragmentation.

We need bridging social capital. By nature, bridging connections require hard work. They're uncomfortable to form. They take energy. Let's reclaim the discomfort. Discomfort doesn't have to read negatively. Instead, discomfort can stand for the dreams we can reach if we take action. Or the thread of curiosity that may lead us down a new path.

Think about the last ~five groups (digital or not) you've interacted with. What's left a meaningful, long-lasting impact (no matter how small)?

For me, any physical community instantly leaves a deeper impact. The act of showing up already feels more effortful and encourages human interaction. Even just talking briefly to my instructor after yoga energizes me and fuels the next few hours of my day. She's a connection I wouldn't have made online: she's older, in a different career, and has different interests, but yoga gives us the common ground to connect. Book club leaves an impact for weeks to come. The shared material glues us together, but also gives us the space to talk about whatever's running through our minds. The sparks that bounce off one another color the whole room and provide threads of curiosity. These shared spaces support meaningful connection that builds understanding, teaches humility, and fosters belonging.

I'd love to see more third spaces in the real world. But current reality is witnessing their disappearance. Even before COVID, between 2008-2015, Finlay et. al reported a 27% decrease in sporting goods, hobby, musical instrument, and book stores, an 18% decrease in arts, entertainment and recreation spots, and an 18% decrease in religious organizations (source). Yet, research confirms the benefits of third spaces. Can we re-introduce third spaces that actually draw in a range of people and support connections across boundaries?

We've done it at least once before according to Putnam. Between 1870-1915, industrialization and urbanization destroyed existing social capital. Americans responded with an "extraordinary burst of social inventiveness" (p. 368). They created institutions we now mourn: the Boy Scouts, the NAACP, the PTA, etc. They invented entirely new forms of bridging inspired by what was lost.

We need inventiveness now. The nostalgic recreation of the 1950s bowling league isn't going to draw huge swaths of people because that's not how we live now. We need genuinely new third spaces catered to current and future life. Maybe that's:

- Co-working spaces with a low barrier to entry (and that are open late!) that intentionally mix professions and age groups
- Digital platforms that require you to engage with opposing viewpoints before continuing to scroll
- Local festivals and recurring events that celebrate difference rather than reinforce sameness

They all require us to choose discomfort. To put in energy and engage with people who make us work harder to understand them. I'm trying to say yes more, extend more invites, and put myself in (reasonably) uncomfortable situations. I'm going to grab coffee or walk around a museum anyway, so why not do it with a real person instead of my phone? And I'll ride the bus either way, so why not start a conversation with the person next to me? It's

way harder than scrolling, and it’s slower than the pace of connection we’re used to online. But the payoff lasts and actually helps me feel less alone.

What are you trying? Where have you found bridging that actually works?