Reality Prescriptions

Near-future pessimistic scenario

The more time we spend in virtual worlds, the more we lose touch with reality. It’s not our fault. These virtual worlds are designed to keep us plugged in with strategically timed dopamine hits. Doctors and mental health experts raise the alarm as they witness the side effects of digital addictions and overdose symptoms. Too many people are losing sleep, straining their bodies, and neglecting loved ones. To combat the rising digital addiction epidemic, health care practitioners begin to prescribe doses of reality. Once recorded in your digital health records, these reality prescriptions commandeer your devices. Restricted usage, diminished potency, and even full-on lockouts limit or prevent your time online. But addictions are hard to overcome, and some patients resort to contraband and DIY devices to get their fix. Reality rehab might be the only solution, but the digital dope keeps beckoning addicts away.
**KEY INSIGHT**

The attention economy, which spawned listicles and tweet roundups, isn’t as easily measured as previously thought. Measuring how consumers allocate their attention depends on how you count—and who is counting.

**EXAMPLES**

Researchers estimate that more than half of web traffic is fake. Fraudulent traffic is generated by bots that can fake clicks and by click farms in which a single user can interact across scores of devices simultaneously. Nevertheless, vast portions of the digital economy are built around quantifying how users consume media online.

Beyond different ways of counting, there’s also outright fraud online. Schemes to manipulate metrics follow the money: MadHive, a digital TV advertising company, estimates that 20% of video ad requests are fake. This is a serious problem for both publishers that rely on ad revenue and for advertisers that need to satisfy client metrics.

**DISRUPTIVE IMPACT**

As mainstream browsers increasingly block third-party tracking cookies by default, it will be harder to connect individuals to their actions across the web. Digital marketers and advertisers must find new ways to quantify the impact of their work—and to ensure that their partners trust their metrics.

**EMERGING PLAYERS**

- Google Analytics
- Chartbeat
- Facebook
- Interactive Advertising Bureau

Brand safety and ad fraud protection will be top advertiser priorities in 2021.
KEY INSIGHT
Digital frailty is when digital assets are impermanent or easily compromised by technical glitches.

EXAMPLES
Digital frailty is evolving from a flaw into a feature: This trend emerged as media was erased from the web because old sites were no longer maintained. It’s still problematic when information with archival value is lost, but more systems are being designed to encode impermanence as users adapt ephemeral tools like Instagram stories or messages that expire within a set time frame. There’s also risk when organizations turn to external tools or services to manage their prominent programming. Storify was a popular tool for aggregating social media posts around a major news event. A team of journalists working for Reported.ly, a now defunct experiment run by First Look Media, won a 2015 Online Journalism Award for reporting on the shooting at Charlie Hebdo magazine in real time. All that reporting lived on Storify but was lost when the platform shut down in 2018.

DISRUPTIVE IMPACT
Sometimes new technology obviates the old before anyone has had a chance to convert files or develop archives. The Internet Archive and others try to create snapshots in time, but the services can struggle with dynamic sites that heavily rely on JavaScript. While there’s archival value to the files we post online, users are increasingly choosing ephemeral formats to share via Instagram Stories and Snap. How will future societies learn from the past if they cannot study the first draft of our present history? Do we have an obligation to preserve the digital conversations shaping society? Should we be working harder to ensure that digital archives aren’t lost?

As we develop expectations for what should be archived, we must consider the risks of creating an indelible record: What should happen to posts shared by minors to social networks or student assignments posted to a school’s digital portal? Do young people have the right to a blank slate when they reach adulthood, or should they be held accountable for ideas they try on for size on the way to maturity?

EMERGING PLAYERS
- Internet Archive
- Amazon Web Services
- Microsoft Azure
- Google Cloud

Patrick Soon-Shiong bought the Los Angeles Times in 2018. The Wall Street Journal reported that Soon-Shiong was trying to sell the company in February 2021.
Sensitive Content Warnings

KEY INSIGHT

Sensitive content warnings now appear regularly, as a way signaling that the information about to be conveyed may upset or aggravate certain readers, viewers, or listeners.

EXAMPLES

Several companies, including Disney and Dr. Seuss Enterprises, are assessing archival content for representations of culture, religion, gender, and ethnicity. As of February 2021, several Dr. Seuss books, which depict racist imagery will no longer be published. A 2019 survey of Seuss' works found that just 2% of human characters were people of color, they never had dialogue, and they were likened to servants or animals. Dr. Seuss Enterprises said that the books—published in the 1930s to the late 1970s—"portray people in ways that are hurtful and wrong." On the Disney+ streaming service, several episodes of "The Muppet Show" now include warnings that episodes contain outdated cultural depictions. Similar disclaimers precede streams of "Lady and the Tramp," "The Jungle Book," "The Aristocats," "Dumbo," "Peter Pan," and "Swiss Family Robinson."

DISRUPTIVE IMPACT

Signposting sensitive content, or removing it completely, will continue this year, sparking controversy and debate about cancel culture. A cultural shift is underway in the U.S. that will result in permanent changes.

EMERGING PLAYERS

- American Association of University Professors
- Modern Language Association
- National Coalition Against Censorship
Most people still find the majority of information they consume through search, and indexing new content types for wearable and spoken interfaces is proving challenging.

**Examples**
The line between old-fashioned web-pages and new forms of content—from Instagram chats to Alexa conversations to mixed reality characters—is blurring. Companies like Trint help publishers transcribe audio to make it more search-able by traditional crawlers, while other startups like Audioburst are trying to use technology to actually "listen" to data previously locked into a waveform and make these units of audio more navigable. Audioburst’s technology ingests and analyzes audio and uses natural language processing to understand its contents, contextualize it, and make it all searchable.

**Disruptive Impact**
It will be a while before we have a universal search agent that crawls through conversations, games, and mixed reality content for the information we seek. Until then, voice search optimization (VSO) will emerge as a way of surfacing relevant content on spoken interfaces. Spatial computing is in its infancy today, but soon consumers might expect to be served only stories relevant to what they are viewing through smart glasses. Searches based on conversation or what a user is looking at will be highly contextual, requiring sophisticated algorithms to anticipate the intent of a query and the relevancy of results.

**Emerging Players**
- Trint
- SpokenLayer
- Audioburst
- Listen Notes
- Snap