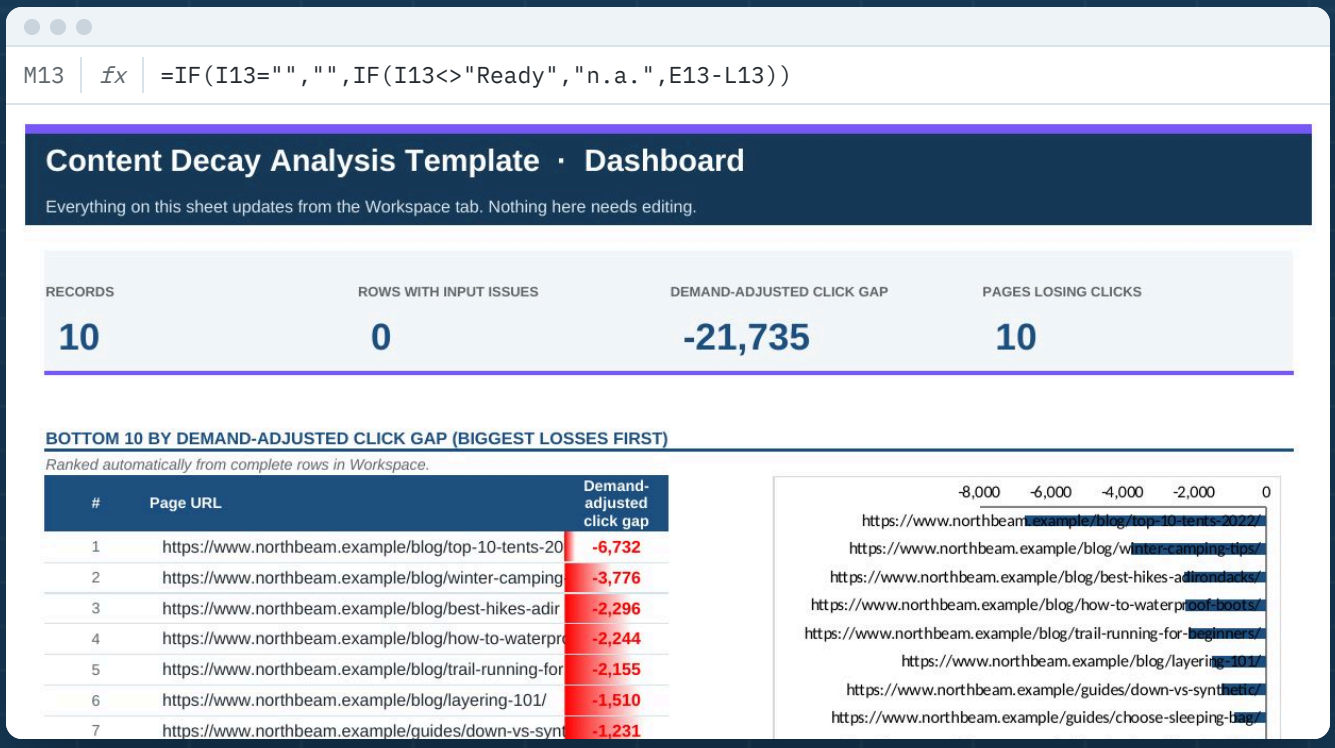
OptimizationTheory.com

Content SEO Toolkit, resource 21

Content Decay Analysis Template

Separate lost impressions, lower CTR and falling demand, so you refresh the pages that really decayed.

Built for the DataForSEO API: Labs: Ranked Keywords



Field guide, v3.0, November 2026

Jourdan Rombough, optimizationtheory.com

What this template decides

Whether a page lost clicks because it lost rankings, lost CTR or the market lost interest, and how big the demand-adjusted gap is.

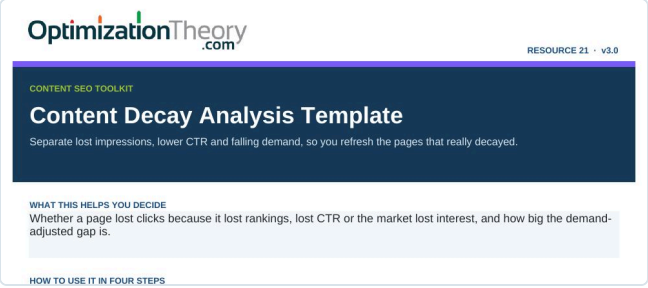
Traffic decline is a symptom with several causes. A page can lose clicks because it dropped in rankings (fewer impressions), because something on the SERP is stealing the click (lower CTR), or because people simply search for the topic less. Each cause needs a different fix, and only one of them is fixed by rewriting the page.

This content decay analysis template compares impressions and clicks for two periods, calculates CTR for each, and adjusts the earlier clicks by a demand index so you can see the gap that remains after market changes. Pages with a large negative gap are your real decay.

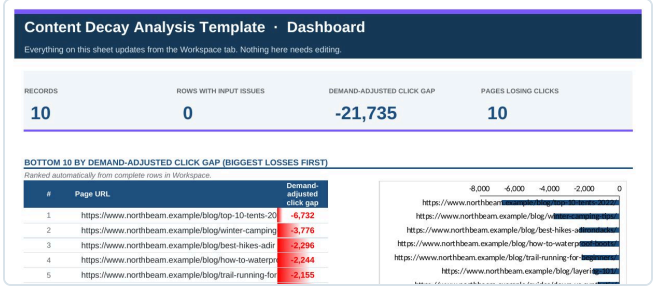
Who it's for

- Content teams deciding which posts to refresh
- SEOs explaining a traffic decline to stakeholders
- Analysts separating SERP feature impact from ranking loss
- Publishers with large archives

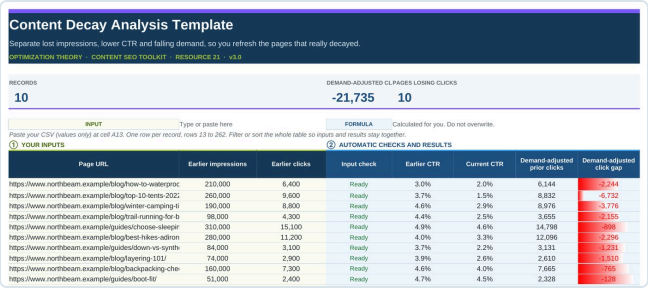
What's in the workbook



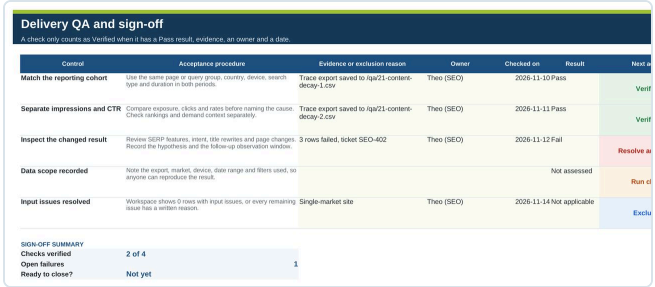
Start Here. Purpose, four-step setup and colour key.



Dashboard. KPIs, charts, Top 10 and an automatic action list.



Workspace. The working table, room for 250 rows.



Delivery QA. Evidence, owner and date for each validation step.

How the calculation works

Earlier CTR = clicks before ÷ impressions before. Current CTR = clicks now ÷ impressions now. Demand-adjusted prior clicks = clicks before × demand index. Click gap = clicks now – adjusted prior clicks.

The key formula, as written in the workbook

```
=IF(I13="","",IF(I13<>"Ready","n.a.",E13-L13))
```

Result column	Plain-English formula	What it tells you
Earlier CTR	Earlier clicks ÷ Earlier impressions	Earlier clicks divided by earlier impressions.
Current CTR	Current clicks ÷ Current impressions	Current clicks divided by current impressions.
Demand-adjusted prior clicks	Earlier clicks × Demand multiplier	Earlier clicks scaled by the stated independent demand proxy.
Demand-adjusted click gap	Current clicks-Demand-adjusted prior clicks	Observed clicks minus demand-adjusted earlier clicks.

How to use it, step by step

1

Export two comparable periods

Pull impressions and clicks per page from Search Console for the same months in two years.

2

Add a demand index

Use Google Trends or keyword volume to estimate demand now vs then (0.9 = demand fell 10%).

3

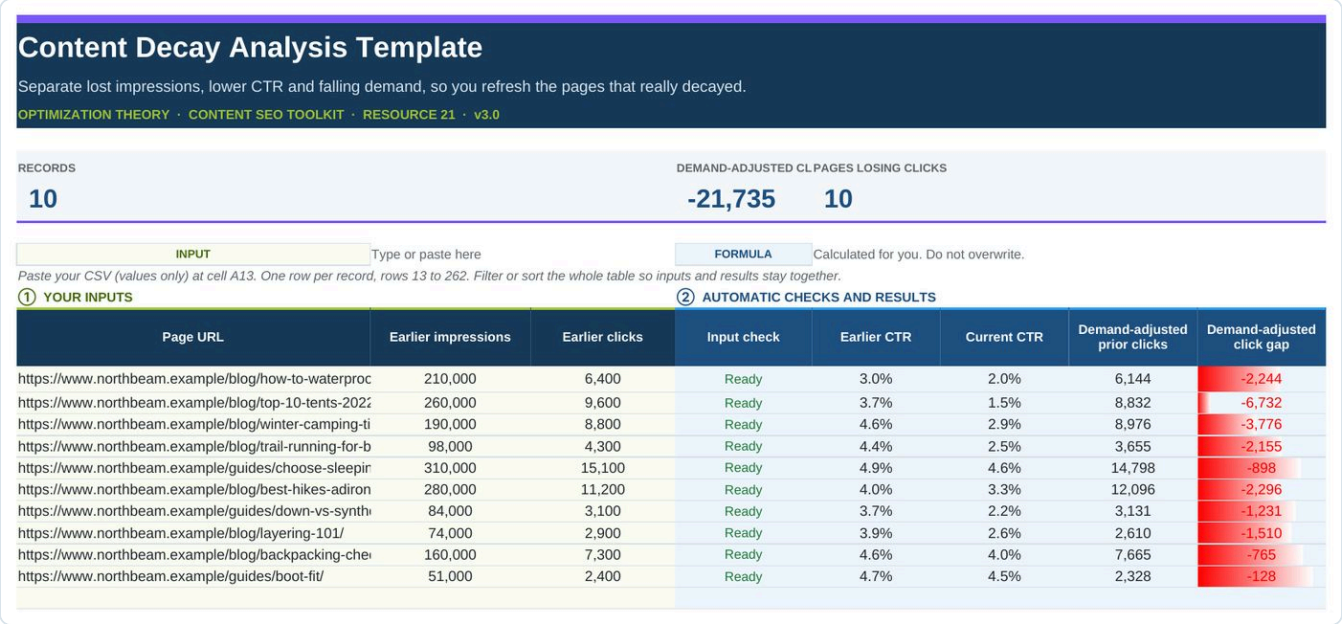
Compare CTR and impressions

Impressions falling means visibility loss; CTR falling with stable impressions means the SERP changed.

4

Refresh the true decayers

Sort by demand-adjusted gap. Refresh visibility losers; rethink titles and snippets for CTR losers.



Content Decay Analysis Template

Separate lost impressions, lower CTR and falling demand, so you refresh the pages that really decayed.

OPTIMIZATION THEORY · CONTENT SEO TOOLKIT · RESOURCE 21 · v3.0

RECORDS	DEMAND-ADJUSTED CL	PAGES LOSING CLICKS
10	-21,735	10

INPUT Type or paste here — FORMULA Calculated for you. Do not overwrite.

Paste your CSV (values only) at cell A13. One row per record, rows 13 to 262. Filter or sort the whole table so inputs and results stay together.

① YOUR INPUTS — ② AUTOMATIC CHECKS AND RESULTS

Page URL	Earlier impressions	Earlier clicks	Input check	Earlier CTR	Current CTR	Demand-adjusted prior clicks	Demand-adjusted click gap
https://www.northbeam.example/blog/how-to-waterproc	210,000	6,400	Ready	3.0%	2.0%	6,144	-2,244
https://www.northbeam.example/blog/top-10-tents-2022	260,000	9,600	Ready	3.7%	1.5%	8,832	-6,732
https://www.northbeam.example/blog/winter-camping-ti	190,000	8,800	Ready	4.6%	2.9%	8,976	-3,776
https://www.northbeam.example/blog/trail-running-for-b	98,000	4,300	Ready	4.4%	2.5%	3,655	-2,155
https://www.northbeam.example/guides/choose-sleepir	310,000	15,100	Ready	4.9%	4.6%	14,798	-898
https://www.northbeam.example/blog/best-hikes-adiron	280,000	11,200	Ready	4.0%	3.3%	12,096	-2,296
https://www.northbeam.example/guides/down-vs-synth	84,000	3,100	Ready	3.7%	2.2%	3,131	-1,231
https://www.northbeam.example/blog/layering-101/	74,000	2,900	Ready	3.9%	2.6%	2,610	-1,510
https://www.northbeam.example/blog/backpacking-che	160,000	7,300	Ready	4.6%	4.0%	7,665	-765
https://www.northbeam.example/guides/boot-fit/	51,000	2,400	Ready	4.7%	4.5%	2,328	-128

The Workspace tab with the worked example. Lime cells are inputs; blue cells are formulas.

Fill it with DataForSEO

This template is built to run on **DataForSEO Labs: Ranked Keywords**: every keyword a domain ranks for, with its ranking URL, position and volume.

Most of the data columns fill automatically. Add the business inputs listed below, then paste.

1. Request the data

```
POST https://api.dataforseo.com/v3/dataforseo_labs/google/ranked_keywords/live
[
  {
    "target": "yourdomain.com",
    "location_code": 2840,
    "language_code": "en",
    "limit": 1000
  }
]
```

2. Save the full JSON response

Save the complete response, not just the task ID, next to the template folder.

3. Convert it to the input CSV

The script in the Automation folder runs offline: no API call, no credentials.

```
python3 Automation/dataforseo_import.py import --template 21 --input response.json --output my-inputs.csv
```

Fills automatically	You add
Page URL	Earlier impressions, Earlier clicks, Current impressions, Current clicks, Demand multiplier, Work hours

Source reference fills automatically with the task ID, endpoint, location, language, device and snapshot time, so every row is traceable. Paste the finished CSV at Workspace cell A13. Estimate the cost first with the DataForSEO Cost Calculator (template 38).

Input dictionary

Keep the CSV columns in this order and paste values at Workspace cell A13. A missing observation stays blank; use 0 only for a measured zero or a verified No.

CSV field	Column	Meaning and rule	Typical source
`url`	Page URL	Exact absolute URL. Keep case and query parameters unless a documented normalization rule applies.	DataForSEO: url
`impressions_before`	Earlier impressions	GSC impressions for a complete comparison window.	Your records or manual review
`clicks_before`	Earlier clicks	Clicks for the same earlier window.	Your records or manual review
`impressions_now`	Current impressions	GSC impressions for the current comparable window.	Your records or manual review
`clicks_now`	Current clicks	Clicks for the current window.	Your records or manual review
`demand_index`	Demand multiplier	Independent demand proxy current / earlier for this topic. 1 means unchanged.	Your records or manual review
`effort_hours`	Work hours	Estimated implementation hours, greater than zero.	Your records or manual review
`source_ref`	Source reference	Task ID, export filename and observation scope. Retain the untouched source response separately. Optional.	DataForSEO: source_ref

The worked example

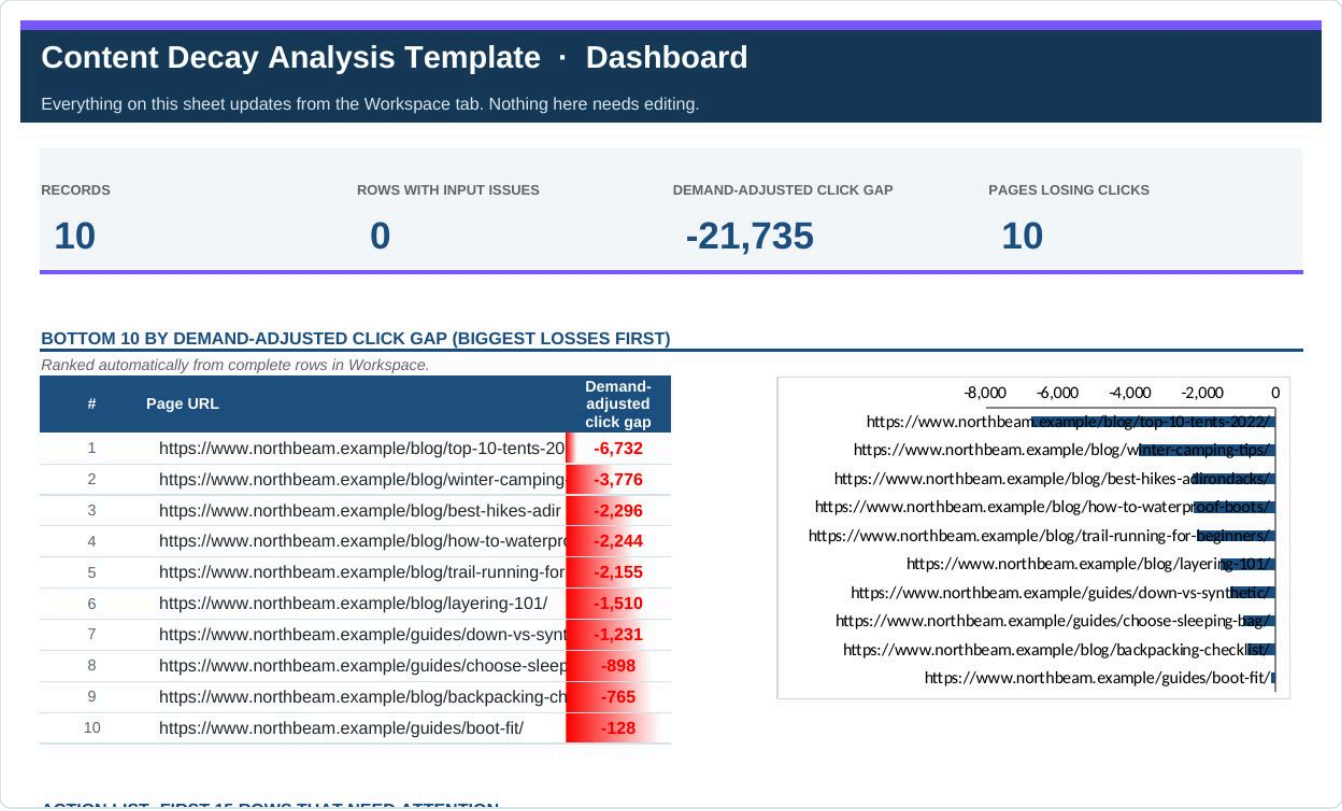
Every workbook ships filled with data from Northbeam Outdoor, a fictional outdoor-gear retailer. This one has 10 example rows.

10	0	-21,735	10
Records	Rows with input issues	Demand-adjusted click gap	Pages losing clicks

The 'top tents of 2022' post lost both impressions and CTR: classic decay. The Adirondacks hikes post gained impressions but lost CTR, which points to a changed SERP rather than a content problem.

Bottom 10 by demand-adjusted click gap (biggest losses first)

#	Page URL	Demand-adjusted click gap
1	https://www.northbeam.example/blog/top-10-tents-2022/	-6,732
2	https://www.northbeam.example/blog/winter-camping-tips/	-3,776
3	https://www.northbeam.example/blog/best-hikes-adirondacks/	-2,296
4	https://www.northbeam.example/blog/how-to-waterproof-boots/	-2,244
5	https://www.northbeam.example/blog/trail-running-for-beginners/	-2,155



The Dashboard updates automatically from the Workspace tab.

Reading the result honestly

An unchanged CTR with lower impressions points toward exposure or demand. A lower CTR needs a SERP and snippet review.

Limits. Monthly keyword-volume estimates and GSC impressions measure different populations. The demand multiplier is an explicit heuristic.

Mistakes to avoid

Treating every decline as decay. If demand fell 20%, a 20% traffic drop isn't something you can fix with content.

Comparing different seasons. Compare the same months year over year.

Refreshing pages with CTR problems by rewriting the body. If impressions held and CTR fell, start with the title, snippet and SERP features.

Tips from the field

Check SERP features, AI Overviews especially, for pages whose CTR dropped.

Use the title tag CTR test after changing snippets.

Feed confirmed decayers into the content audit as Refresh.

Questions people ask

What is content decay?

The gradual decline in a page's organic traffic over time as rankings slip, competitors improve, information ages or the SERP changes.

How do I find decaying content?

Compare Search Console clicks and impressions for each page across the same months in two years, adjusted for changes in demand.

How do I fix content decay?

Update facts, add original evidence, improve coverage of current questions, strengthen internal links and retest titles. Merge if a stronger page covers the topic.

Can AI Overviews cause traffic decline?

Yes. AI Overviews and other SERP features can lower CTR even when rankings hold. This template separates that from ranking loss.

Templates that work well with this one

Content Audit Template
Score every URL by lost clicks, conversions and links, choose keep, refresh, merge or retire, and catch the risky calls.

Title Tag CTR Test Calculator
Compare two CTRs with a 95% interval and plain-English verdicts, so you don't ship a title change that was just noise.

Keyword Cannibalization Checker Template
Find queries splitting clicks across two URLs, check whether intent really overlaps and decide whether to consolidate.

SEO Visibility Score Calculator
Weight rankings by search volume and CTR to see real visibility gains and losses across a fixed keyword set.

SEO Content Calendar Template
Track owners, due dates and estimated vs completed hours, and flag overdue work automatically.

SEO Content Brief Template
A content brief built for Google and AI answers: real questions, original evidence, sources and a three-step approval workflow.

Read the full tutorial online: **optimizationtheory.com/download-view/content-decay-analysis-template/**
Get all six templates in the **Content SEO Toolkit**, or all 40 in the **Complete SEO & GEO Toolkit**.