STM 50
The global voice of scholarly publishing

Agility in tools can be pretty and deliver significant impact – ScienceDirect Topics

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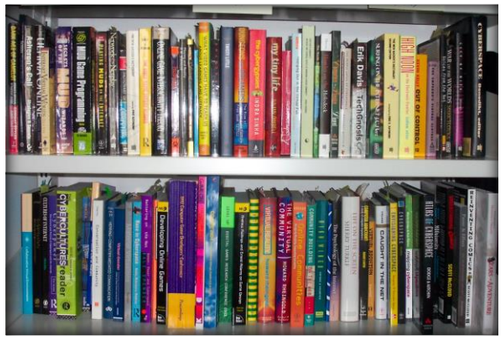
Agenda

- The problem and understanding the opportunity
- Developing the solution (agile and pretty)
- Where are we now. Results (impact)
- Closing the loop with sales, marketing and editorial

The Problem…..

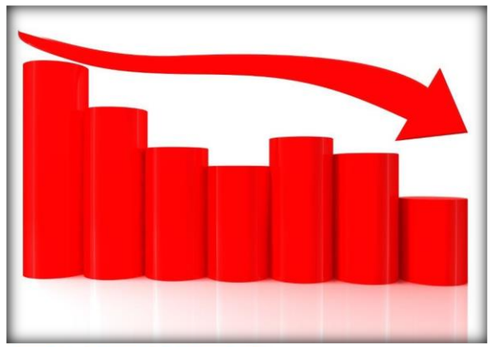


Book user experience not aligned with user needs

- Researchers often say they don’t use, or don’t know they are using books
- Books usually associated with static print product
- Use case for books and value proposition not clear

Leading to poor value perception with commercial buyers

- Book usage data often not compelling
- Faculty recommendations and endorsement low or uneven
- Books ‘nice to have’ not ‘must have’



Resulting in poor business outcomes

- Online book revenues stagnating and not offsetting print decline
- Books account for 8% of the content on ScienceDirect but only 3% of the usage
- Only 30% Penetration of books into ScienceDirect accounts

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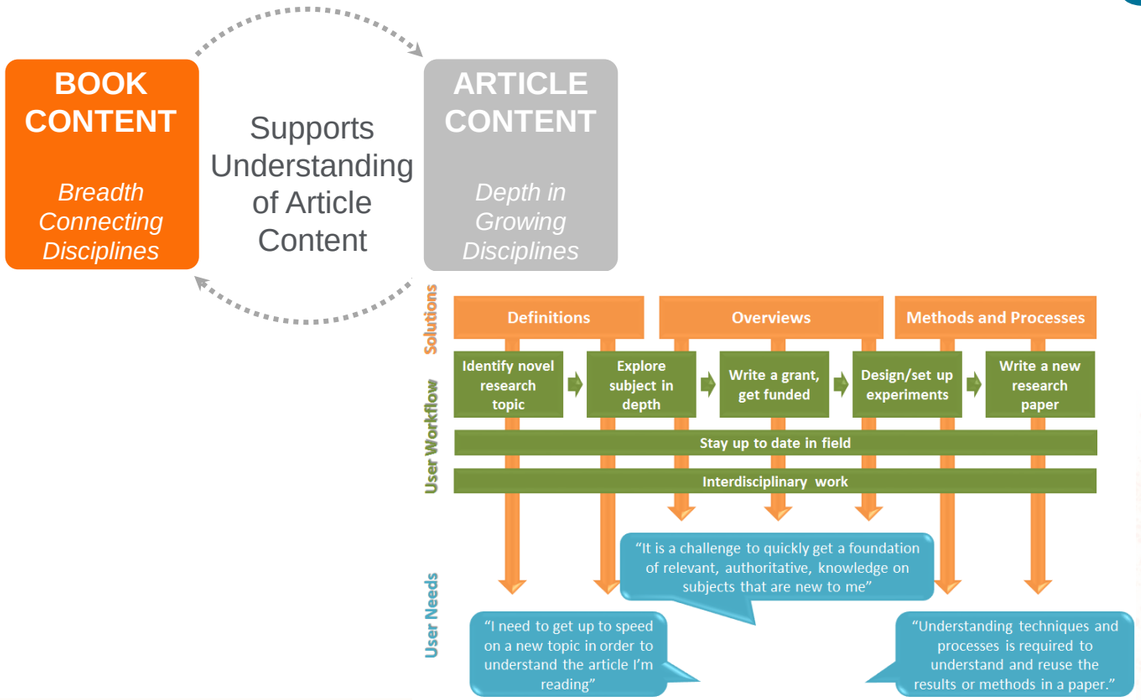
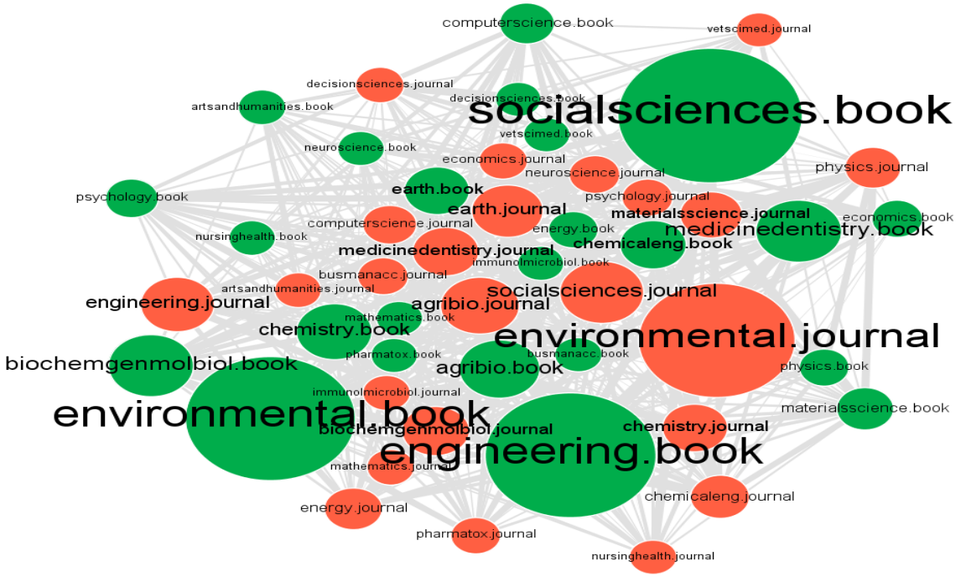
…and understanding the opportunity





Key themes we hear from customers

- Users are looking for answers – not necessarily journals or books
- Foundational content plays a big role in interdisciplinary research
- Books are a recognized way of quickly getting up to speed in a new subject

What the data tells us

- Usage data confirms what we heard: co-usage of books and journals and interdisciplinary content use

Developing the solution (agile and pretty - MVP)

ScienceDirect

Journals Books

Back to previous page > Pyramidal tracts

Pyramidal tracts 1

The pyramidal tract exits the cortex, and after passing the pyramids of the medulla , the majority of these fibers cross to the opposite side and descend in the corticospinal tract through the spinal cord (Figure 3). Some of the fibers that do not cross over in the medulla travel ipsilaterally down the cord and cross to the opposite side in the neck or upper thoracic region.

From: Reference Module in Biomedical Research, 2014 4

Related terms 2

RTMS, Motor area, Motor cortex, Cervical spinal cord, Decussate, Motor neuron, Corticobulbar tract, Facial nucleus, Precentral gyrus, Anterior horn cells

Learn more about Pyramidal tracts 3

Spinal Tracts – Descending/Motor Pathways

Paul Rea, in *Essential Clinical Anatomy of the Nervous System*, 2015.

Pyramidal tracts

The pyramidal tracts are comprised of the corticospinal and corticobulbar tracts. These are called as pyramidal tracts as they crossover at the level of the pyramids in the medulla. They are collections of upper motor neuron fibers which go to the spinal cord (corticospinal) or the brainstem (corticobulbar) and control the motor function of the body.

The corticospinal tract is comprised of a ventral and lateral tract

Spinal Cord

Gulgun Sengul, Charles Watson, in *The Human Nervous System (Third Edition)*, 2012.

Corticospinal Tract

The corticospinal tract, also called the pyramidal tract because its fibers form the medullary pyramids, is found in all mammals with considerable variation between species. The dorsal corticospinal tract is the major corticospinal bundle, found in the dorsal column in rodents. In primates, it is highly developed and the major bundle is in the lateral column.

The fibers that give rise to the corticospinal tract in adult mammals arise from the neurons of the precentral gyrus and the pa-

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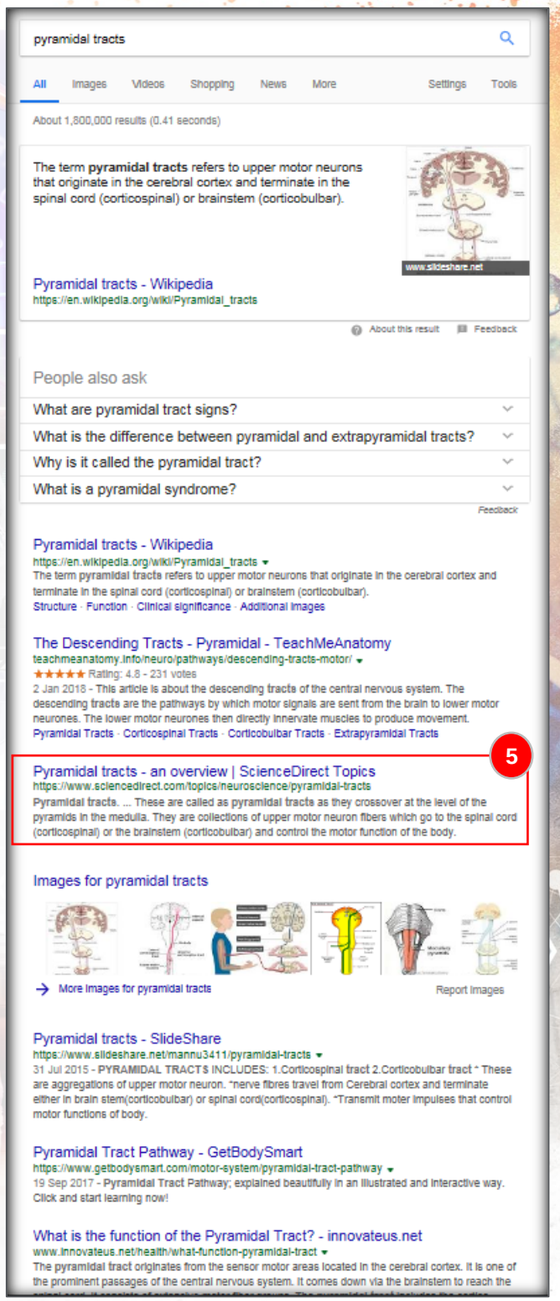
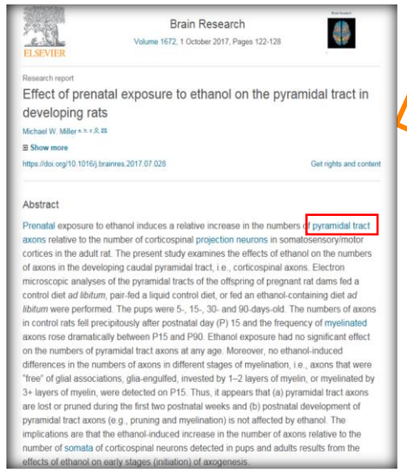
1. **Definitions extracted from Elsevier books.**
2. **Related terms with hyperlinks to explore.**
3. **Short extracts of the most relevant information that are often found deep within book chapters and links to the source books for further exploration.**
4. **Links to the Full Text**
5. **Optimized for SEO**



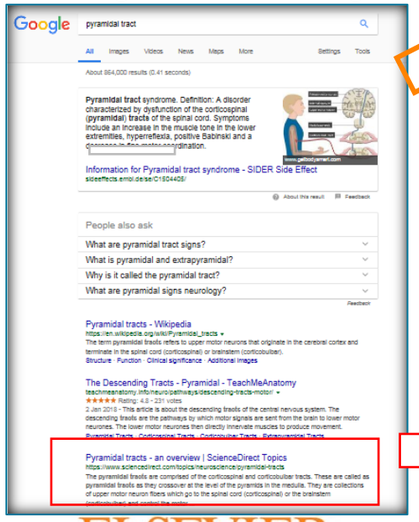
Developing the solution (agile and pretty - MVP)

Focus on metrics and a data driven approach leads to success

Article Page

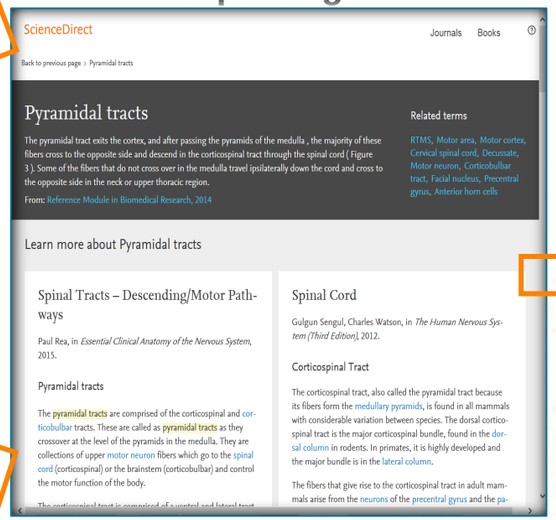


Google Search Page

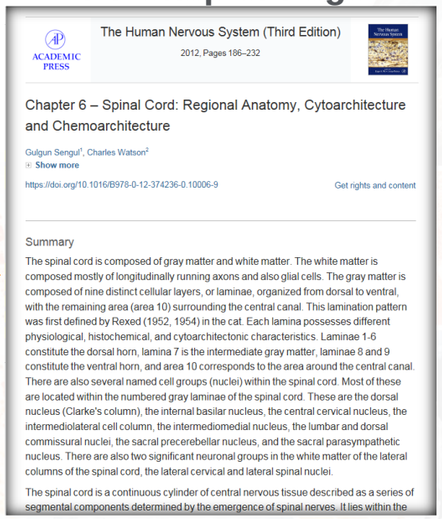


From Article page hyperlinks

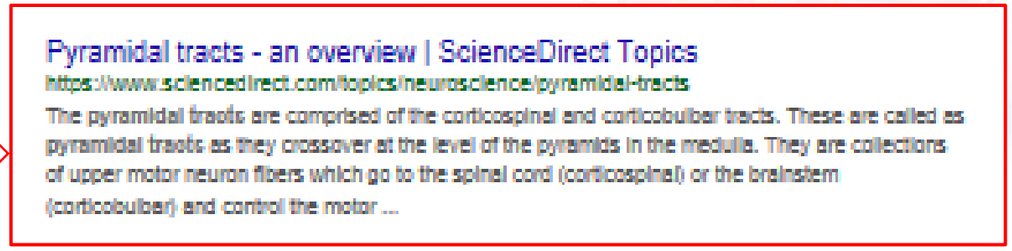
Topic Page



FT Chapter Page



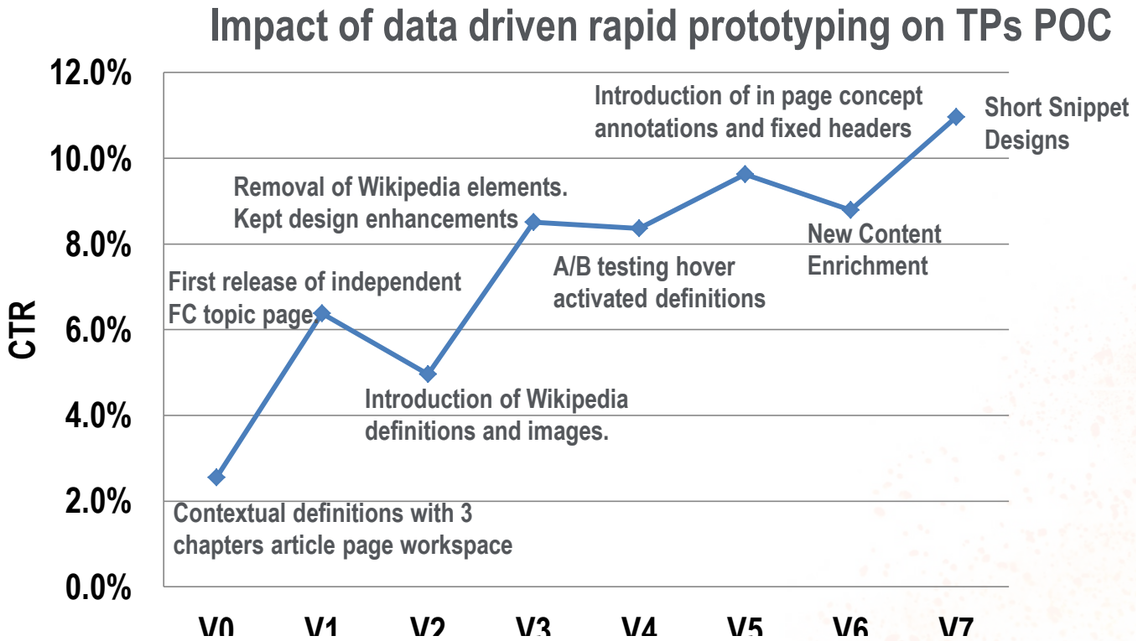
TPs Consistently rank on the first page of Google search

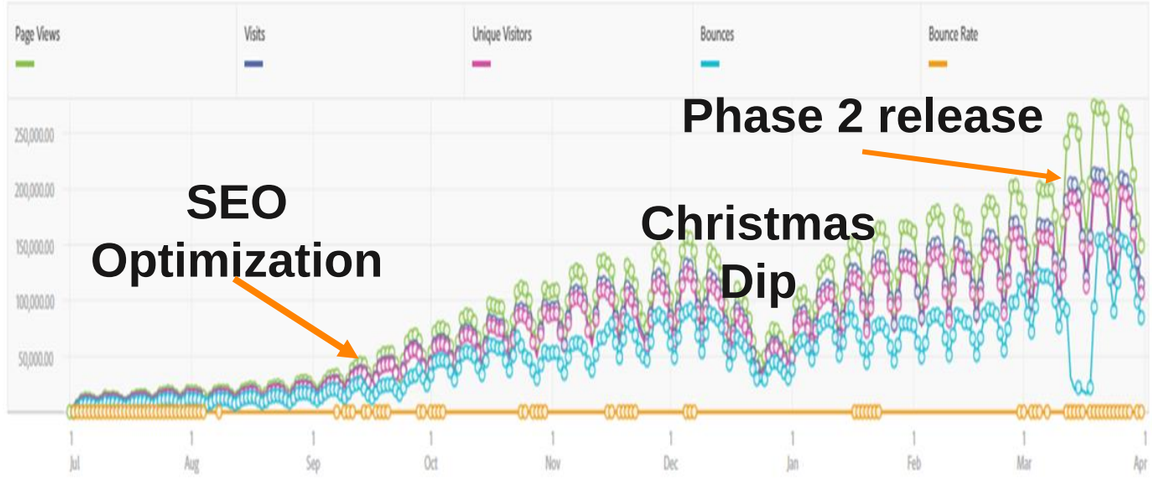


- Designs were optimized for key metrics: **usage**, and **co-usage**.
- 2 streams for driving traffic: **ScienceDirect journal articles** or **Google search**
- Free layer of authoritative content = **high SEO value** = traffic driver
- Topic page elements were tracked and iterative refinements of the POC were made to the design using data driven techniques to optimize **user engagement and conversion to ScienceDirect**

Developing the solution (agile and pretty - MVP)

Focus on metrics and a data driven approach leads to success





Example 1: Rapid prototyping technique to optimize user engagement

- 2 week sprints to analyse results – iterate and refin
- Agile – learned quickly and failed fast
- A/B testing of different page layouts
- Conversion rates (CTR) grew from **2.5% to 11.0%** i the POC
- Production environment - further **improved to 27%**

Example 2: Iterative SEO design to optimiz Google traffic.

- Experimented with FT snippets length to optimize SEO
- 20% of traffic came from Google in POC and has now grown to 80% in production through refinemen
- Google average ranking = 8.1 in March

Developing the solution (agile, pretty, scalable)

330,000 Topic Pages created in a fully automated way by combining content, technology & analytics

Automated and Dynamic

- Topic Pages (TPs) use a set of **deep learning (ML) algorithms** to automatically extract relevant information and generate TPs the moment new concepts are added to the taxonomies.
- Topic Pages are updated automatically on a regular basis

Comprehensive and Growing

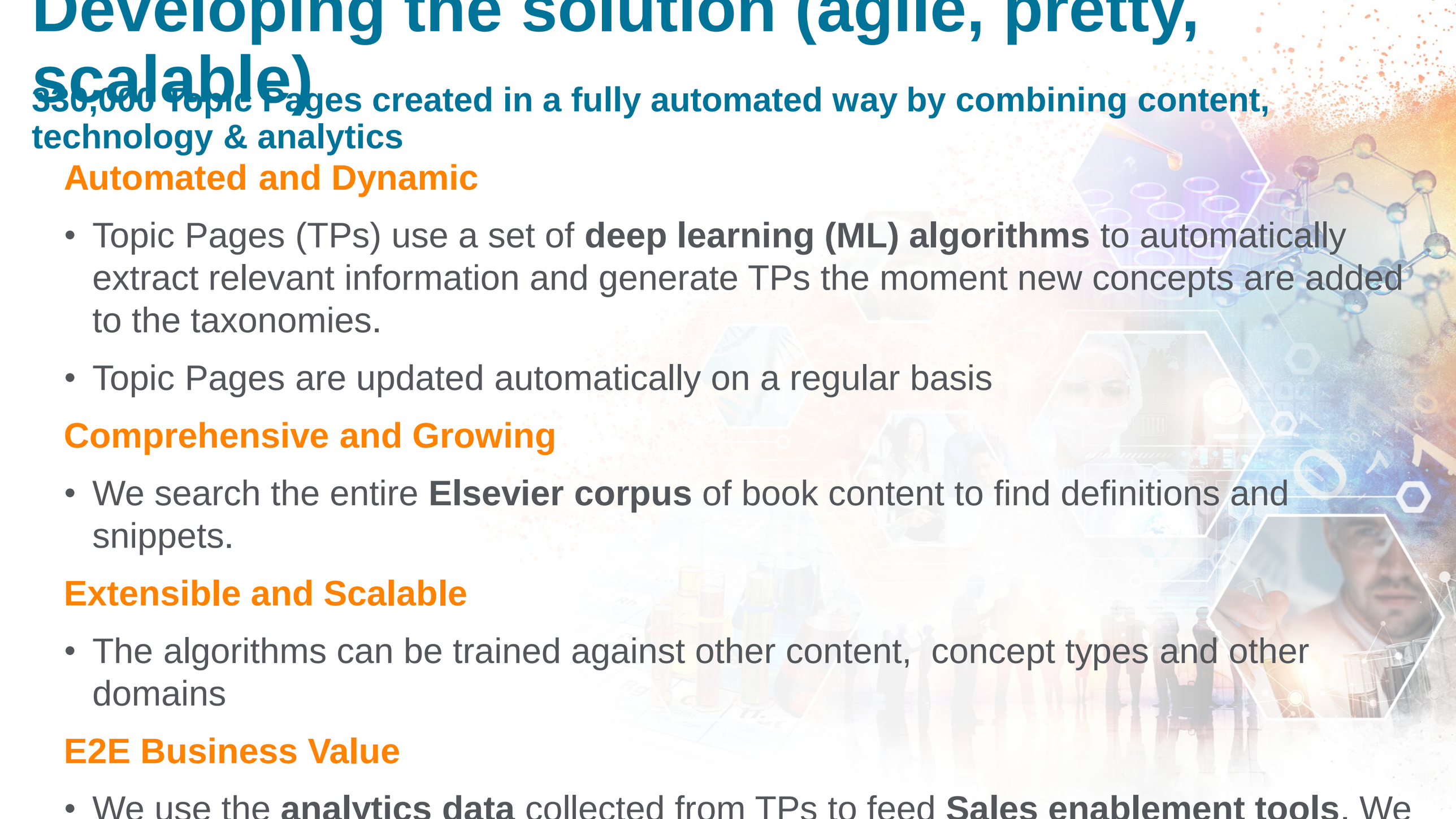
- We search the entire **Elsevier corpus** of book content to find definitions and snippets.

Extensible and Scalable

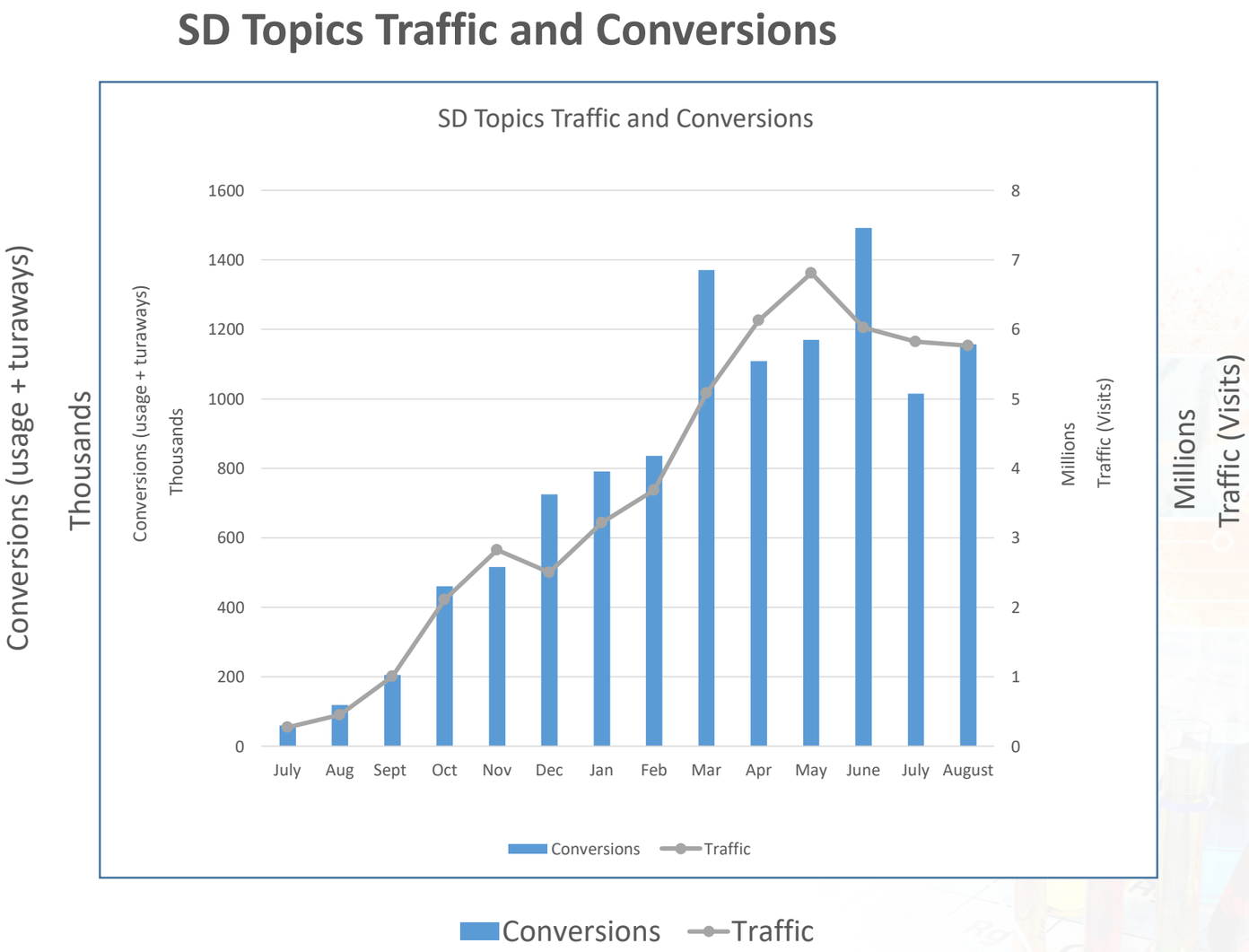
- The algorithms can be trained against other content, concept types and other domains

E2E Business Value

- We use the **analytics data** collected from TPs to feed **Sales enablement tools**. We

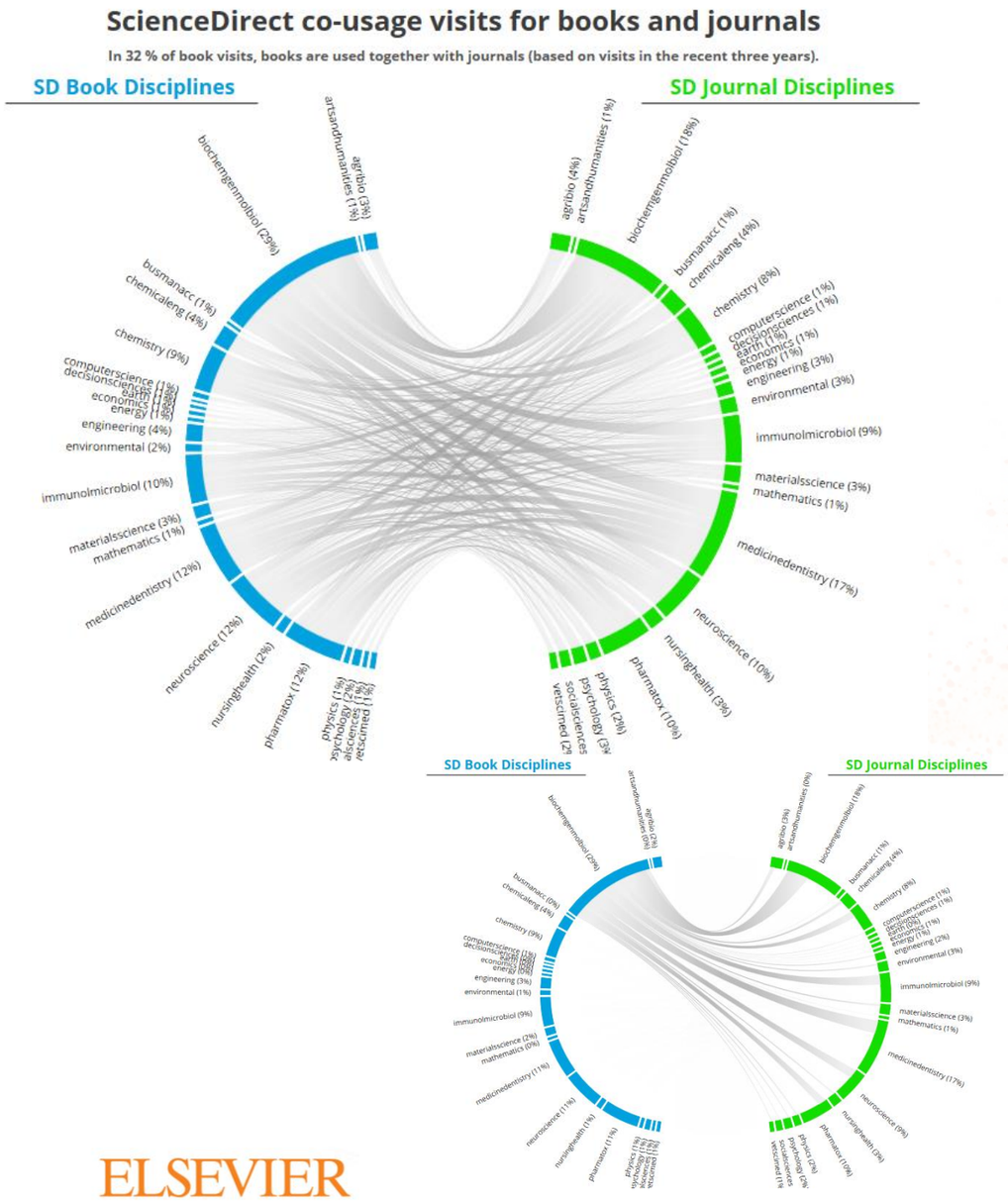


Where we are now: Impact

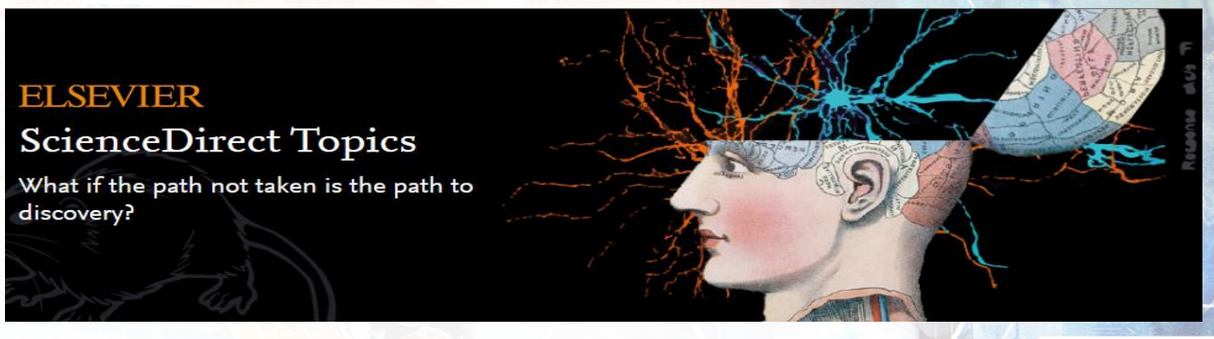


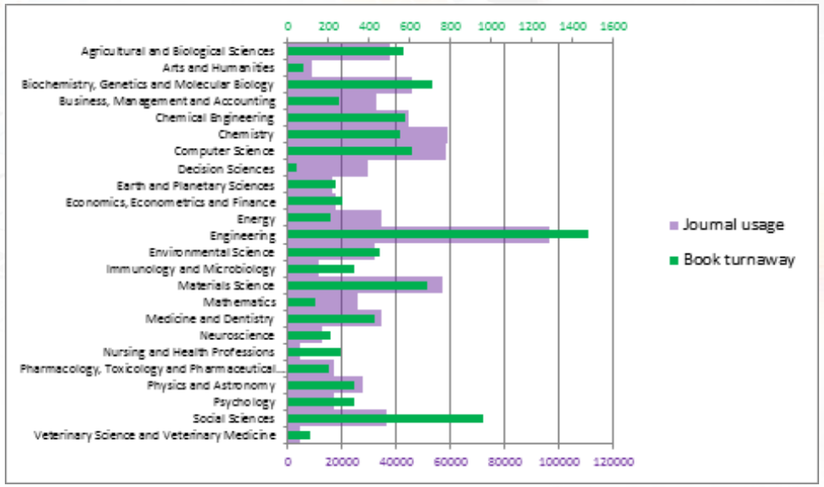
- **330K** - Topic Pages (TPs) in production
- **8.1** - average result ranking in Google
- **7.5M** - visits/month – 15% of all traffic to ScienceDirect
- **5.8M** - unique visitors in March = 10% of all Science Direct unique users
- **60% -** Return Visits
- **28%** - Book usage growth YTD
- **48% -** growth in co-usage YTD
- **85%** - users find Topic Pages useful

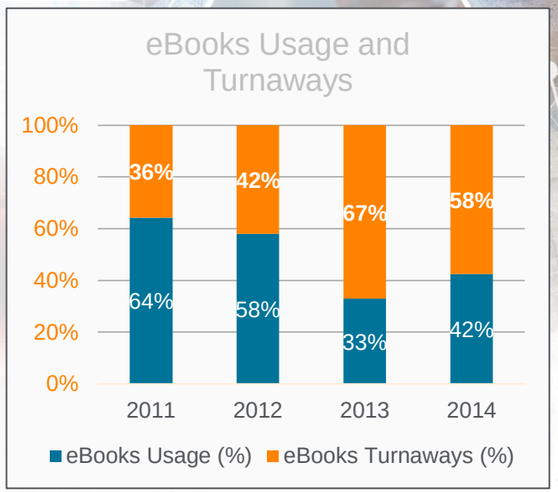
Closing the loop with sales, and editorial



- Developing sales enablement ‘value capture’ tools: Gap tool, co-usage tool
- Use Topic Pages to enhance the books value proposition
- Usage data to drive commissioning strategy







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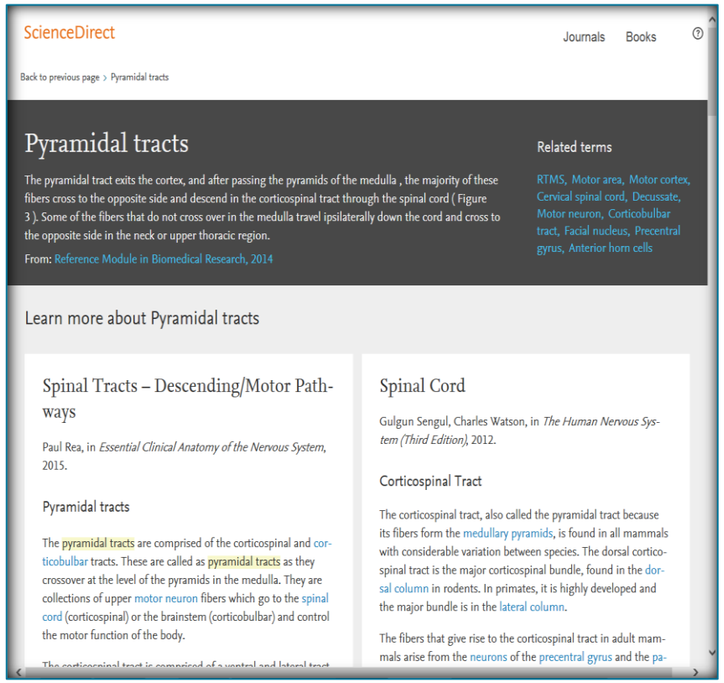
Pull up a Topic Page via Google search



- pyramidal tracts
- lower motor neuron lesion
- event related potential
- wallerian degeneration
- ammonification
- matric potential

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Thank You