Angela R. Davis
ard21@psu.edu
Engineering Liaison Librarian
The Pennsylvania State University

Selecting Reference Sources for Engineers

Example of Two Choices: Knovel and ENGnetBASE

PennState University Libraries

Introduction

Reference materials, especially handbooks and manuals, are of great importance to engineering fields.

These materials include foundational information such as properties data and mathematical formulas useful to researchers and practitioners alike.

These reference materials are available through many different database vendors and eBook platforms.

With multiple options, how are librarians to determine the best platform for their users' needs? This study will compare Knovel and ENGnetBASE.

1

How can I choose what reference materials will be good for my users?

There are so many choices available!

The library is testing Knovel and ENGnetBASE, but how to choose?

I know!
I'll listen to see what students say!

2

Did you start working on the project?

Not yet.

The professor said the library would have books that we should use.

I found two engineering eBook databases that we could use.
Knovel or ENGnetBASE
What should we use?

I don't know. Let's try both and see what works.

3

What is in each database?

Ho do we know what one to use?

These are the subjects covered in each database:

Knovel	ENGnetBASE
Adhesives, Coutings, Sealants & Inks	Aerospace Engineering
Aerospace & Radar Technology	Bioprocessing
Biochemistry, Biology & Biotechnology	Chemical Processing & Design
Ceramics & Ceramic Engineering	Civil Engineering
Chemistry & Chemical Engineering	Electrical Engineering
Civil Engineering & Construction Materials	Engineering Design
Composites	Engineering Management
Computer Hardware Engineering	Geotechnical Engineering
Earth Science	Mass Transfer
Electrical & Power Engineering	Mechanical Engineering
Electronics & Semiconductors	Mining Engineering
Engineering Management & Leadership	Networking Communications
Environment & Environmental Engineering	Packaging
Fire Protection Engineering & Emergency Response	Power Engineering
Food Science	Process Control
General Engineering & Product Administration	Reference & Collected Works
Industrial Engineering & Operations Management	Structural Engineering
General Engineering & Project Administration	Systems Engineering
Manufacturing Engineering	Telecommunications
Marine Engineering & Naval Architecture	
Mechanics & Mechanical Engineering	
Metals & Metallurgy	
Mining Engineering & Extraction Metallurgy	
Nanotechnology	
Nondestructive Testing & Evaluation	
Oil & Gas Engineering	
Optics & Photonics	
Pharmaceutics	
Cosmetics & Toiletries	
Plastics & Rubber	
Process Design, Control & Automation	
Software Engineering	
Sustainable Energy & Development	
Safety & Industrial Hygiene	
Textiles	
Transportation Engineering	
Welding Engineering & Materials Joining	

It looks like Knovel is very detailed with its subject areas.

It might be hard to know what section to pick.

ENGnetBASE is more broad and might be easier to find what we need.

4

Awesome!

We found some really great stuff.

Can we use this on our phones from the coffee shop?

Here is what they say about mobile features:

Knovel	ENGnetBASE
Mobile web browser	Mobile web browser
My Knovel ToGo android & iOS apps provides access to the entire database on or off-line	Pair mobile device by visiting crcnetbase.com from any mobile device or through passcode from institutional subscription to access the entire database

Knovel ToGo

CRCnetBASE MOBILE

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Oh no! My phone is going to die. Can we print stuff out?

Here is what they say about printing:

Knovel	ENGnetBASE
15% of book per session	By chapter with no limit

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I almost forgot!

We need to analyze our research data and compare it to accepted values.

Does one of these databases help with that?

It says here that Knovel has all these features we can use to manipulate our data:.

Interactive formulas, tables, & graphs that we can add our data to
Download data to Excel, Sharepoint, Revit, AutoCAD, & Inventor
Search for data throughout all the materials
Search specific properties data and design specifications databases

It look like ENGnetBASE just has books.

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We also need to cite the stuff we use.

Are there things to help?

It says these option are available to help us with citing for our project:

Knovel	ENGnetBASE
RIS & plain text formats	RIS & plain text formats
ProCite, EndNote, RefWorks, Zotero, & Reference Manager integration	ProCite, EndNote, RefWorks, Zotero, & Reference Manager integration

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I'm going to have to go to another class, is there a way we can save this work and share it with each other later?

Here is what it says about saving and sharing:

Knovel	ENGnetBASE
Save frequently used-titles, materials property databases, searches, & equations	Save and manage searches & add chapters and book content to personal bookshelf
Create custom folders	Create personal bookshelf of materials
Share folders and saved materials with other users	

9

Wow! There are a lot of features available.

But how can I provide access and assess if anyone is using these resources?

10

Here is the publisher and purchasing options:

	Knovel	ENGnetBASE
Publisher	Elsevier	CRC Press
Subscription Options	Annual subscription Subscribe by section	Perpetual access by year published ENGnetBASE is one of several science and technology collections available on the CRCnetBASE platform that can be purchased separately
Backfile Options	Subscription provides access to all materials covered	Perpetual backfile purchase by year

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How many books are in each database?

* This is only 1 year's worth of materials for ENGnetBASE.

If we could get multiple years it would eventually total more titles than Knovel.

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Can I add these to the OPAC?

Knovel	ENGnetBASE
MARC files via OCLC	MARC-21 & UTF-8 files direct for books

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How can I assess if anyone is using these databases?

Knovel	ENGnetBASE
Monthly emailed reports of usage by subscribed section No title-by-title usage	COUNTER usage reports for title –by-title usage

Conclusion

In general engineers don't care where the information come from, they just want reliable and citable references. There are many other engineering reference resources available and the techniques described here can be used to evaluate them to balance library budgets and user needs.

In summery, Knovel and ENGnetBASE provide comparable access to engineering reference information. Knovel is an aggregator for other publishers, while ENGnetBASE consists solely of CRC Press materials. Knovel includes interactive features which are an added bonus, if they are being used. Knovel is by subscription only with minimal usage data available, while ENGnetBASE allows for perpetual access with COUNTER data for individual items. Many of the other features are comparable on both platforms.

Based on the presented evidence, you will have to determine which is better at meeting the needs of your users.