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eWorkbook to support information teams on

TECHNOLOGY-DRIVEN PROJECTS

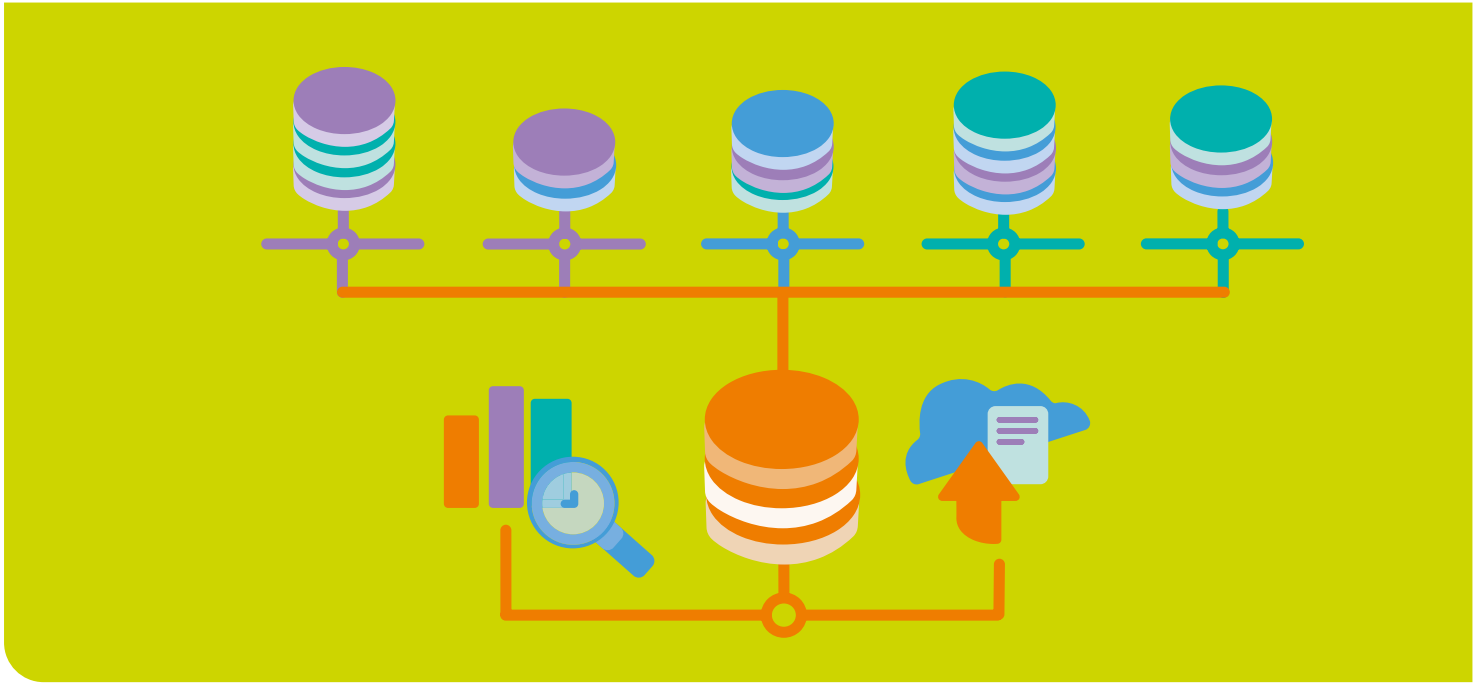
ADVANCING DISCOVERY

Staying informed without suffering information overload

With the pace of change in technology, information teams struggle to stay up to date on new developments – those affecting products and services they already use and those emerging and disrupting the marketplace.

The exercises in this eWorkbook will help you develop a plan to stay informed about changes without overloading your team's capacity. They were developed with a particular focus on tools that:

- Create a single point-of-entry to multiple databases
- Improve back-end connections between multiple databases
- Enable new insights through the use of artificial intelligence and related technologies.



What is relevant?

Analyze current and potential needs within your business to drill down from the universe of emerging technologies to the most relevant ones you need to know about.

Complete a table like the one provided to document current or likely projects:

Project	Status	Owner	Description	Desired impact	Our role
Name the project	Indicate: completed, current, planned, in development, possible	Who is the business owner/ primary stakeholder for this project?	What is the project intended to do	Select the best match of these four: Increased productivity, reduced time-to-impact, enhanced quality, new capabilities	What is your role (current, potential, desired) in this project

Once completed, review the following columns on this table in greater detail:

1.Desired impact: Of the four goals of technology-driven projects, does one show up most frequently?

2. Our role: Are there obvious patterns in terms of how your department can contribute value?

Desired impact

Finding consistencies in the column for “desired impact” can help you define better the types of technologies you need to investigate on an ongoing basis.

- If **increased productivity** is a primary goal, look for technologies, case studies and innovations that streamline or automate parts of previously manual tasks.
- If **reduced time-to-impact** is a primary goal, look for technologies that analyze datasets to spot risks or anomalies before they become problems; enable digital proof-of-concept or piloting processes; shorten development processes without sacrificing quality.
- If **enhanced quality** is a primary goal, look for technologies that spot patterns or flaws that are otherwise subject to human error; interpret and present data visually to make it easier to understand.
- If **new capabilities** if a primary goal, the pressure is on the business to redefine the future – almost any technology can be applied to create new capabilities, with enough creativity on the part of the project owner(s).

Not all emerging technologies are effective for all desired impacts. Your efforts to stay ahead of the curve in terms of what your customers need will be greatly enhanced by ensuring you are focusing on technologies that actually address their concerns.

Your role

How you want to stay up-to-date will also depend on the role you play, or want to play. Your department's role may involve:

- External data - sourcing and procurement
- Supplier management – data and/or technology
- Use case consultant – managing knowledgebase of relevant use cases to ensure best practice is applied across the business
- Other roles.

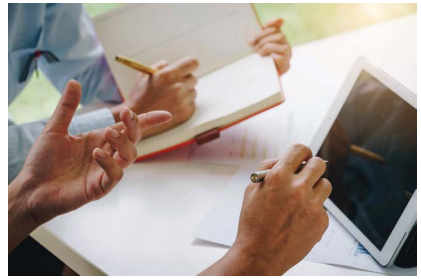
Keeping this focus in mind as you explore emerging technology will help you stay on track with the most relevant and important developments, without getting too distracted by "interesting, but less important".

Create your plan

Finally, create a 12-month plan for investing in your knowledge about emerging and evolving technology. Developing or updating this plan annually will keep it fresh, without demanding you review your goals every month or quarter, or every time information about an interesting webinar or vendor event crosses your desk.

Use a format like the one provided, or develop your own based on what works for your team, to plan once, and then contribute to knowledge throughout the year.

Area	Your Notes	Comments
Primary desired impact(s) for application of technology in our organization		Use this space to state the desired impacts, as identified in the previous step
Our role in increasing value, adoption and ROI on technology		Describe your current or desired role, as identified in the previous step
Current gaps		Articulate what you think the biggest gaps in your expertise are today
Goal: Where do we need to be in 12 months?		Set specific goals for your knowledge in the 12-month time horizon; you might focus on formal training you need to pursue, pilot projects you want to get underway as learning experiences, or even something as simple as assembling a standard terminology for specific technologies in use or under consideration in your organization
Sources		List all sources you are currently using to stay informed; include newsletters, vendors and suppliers, conferences, professional associations, etc.



Then, complete a timeline based on this model:

	Months 1 – 3	Months 4 – 6	Months 7 – 9	Months 10 – 12
Main 12-month goal	Milestone 1:	Milestone 2:	Milestone 3:	Goal achieved!
Intended activities				
Staff time required				

If you have more than one goal, start with a separate timeline for each goal. This will make it easier for you to map out what's needed for each particular goal. Then you can combine the timelines into a master version, which will enable you to ensure you are spreading out the demands on the team across the periods of the year.

Figure 1 shows an example of one team's timeline for investing in their knowledge about new technologies over the course of 12 months. This particular team has two primary goals.

	Months 1 – 3	Months 4 – 6	Months 7 – 9	Months 10 – 12
Main 12-month goal	Milestone 1: Market landscape research on current tools and applications, pros and cons	Milestone 2: Team-based analysis and selection of key areas from market landscape to investigate more closely	Milestone 3: Attend and absorb inputs in one project meeting; debrief as a team afterwards	Participate with greater confidence in internal discussions relating to machine learning applications for interpreting clinical research results
Intended activities	• Vendor research • Publication scanning and review • Assemble findings into shared document • Discuss results at team meeting	• Calls to peer organizations • Assemble information about use cases • Targeted discussions with internal stakeholders about needs	• Investigate projects under consideration or in progress • Request access • Attend and make notes • Debrief with team to document and share knowledge	• Create and distribute communications about value of contributions • Solicit participation in projects
Staff time required	8 hours, plus 45 minutes at team meeting	8 hours, plus 45 minutes at team meeting	5 hours, plus 60 minute team debriefing and knowledge sharing	Incorporation into normal department operations

	Months 1 – 3	Months 4 – 6	Months 7 – 9	Months 10 – 12
Main 12-month goal (as identified above)	Milestone 1: Define universe	Milestone 2: Success-fully use clipping system	Milestone 3: Implementation of clipping system to support knowledge management and sharing	Team is confident with vocabulary and applications of emerging technology
Intended activities	• Audit of current newsletter and alert registrations across team • Analysis of topics covered • Identification of any gaps • Creation of internal clipping and sharing system to ensure capture of useful information	No activities this quarter – main renewal period, no additional capacity	• Analysis of material in clipping system • Monthly team meeting agenda item of high-level review and identification of any next steps (i.e.,register for webinar, speak with vendor, etc.)	Maintain monitoring system and discussion process
Staff time required	4 hours, plus 3 hours to create clipping system and implement	N/A	1 hour of analysis per month; 30-minute agenda item at team meeting once a month	Incorporation into normal department operations
Total staff time per period	8 hours, plus 45 minutes at team meeting 4 hours, plus 3 hours to create clipping system and implement	8 hours, plus 45 minutes at team meeting	5 hours, plus 60 minute team debriefing and knowledge sharing 1 hour of analysis per month; 30-minute agenda item at team meeting once a month	Incorporation into normal department operations

Contributing to successful collaborative teams

With any technology-enabled project, it's essential to be able to collaborate effectively with suppliers, other departments and users.

As important as collaboration is, we rarely take the time to consider what makes it successful. Some preparation and dedication to three elements can make an enormous difference in the success of collaboration, as well as your satisfaction with the process and the outcome.

These elements are:

- understanding the other members of your team
- developing and adhering to a process
- making time for debriefing

Know your team

When trying to create a more integrated search experience or generate fresh insights through application of artificial intelligence and related technology, your collaborative team may include any of the following:

- Project owner
- IT department
- Data science department/experts
- Legal and/or procurement
- Owners of internal datasets
- Owners of external (licensed) datasets
- Technology vendor(s)

Everyone involved with the project has a different perspective, which influences how they define the success of the project. The more you understand how members of the team define success, the easier it will be to develop and work from common ground.

Use this table to document the perspectives of members of your collaborative team:

Team member	Definition of success	Most want to avoid…	Overall perspective
Project owner			
IT			

Add as many rows as you need to document the full team. As and when new collaborative partners join the team, add them to your table.

Be sure to include a row for you and your department – how do YOU define success? What do you most want to avoid? What is your overall perspective on this project?

Your collaborative team table

Team member	Definition of success	Most want to avoid…	Overall perspective
Project owner: VP of Digital R&D	Users in department are more efficient with their research – able to search internal and external sources with minimal clicks in a single environment; leveraging existing data for greater value to company	Overrunning the budget	This is a necessary project to remain competitive; needs ongoing education regarding the technical challenges, without making it so overwhelming it doesn't seem worth doing
IT	Development of a stable environment that needs minimal ongoing adjustments beyond what is already scoped	Scope creep or discovering that initial scope left out critical elements; ongoing requirements that draw on capacity	Stability and security are paramount
Owners of internal datasets	Leveraging existing data without compromising security and regulatory compliance	Unclear expectations; discovery of significant flaws in the data; requirements for significant changes in operation to deliver the data	Primary responsibility is to current operations to ensure no interruptions or undue risks
Technology vendor	Successful pilot and full-scale implementation	Previously unidentified requirements; custom work	Foundation for further contracts and engagement, if successful

As you work on the table, it's not unusual to have blank spots where you are unsure of the answers. A great initial step in collaboration is to ask the questions directly of the team members. If there is a kickoff meeting to the project, ask that this information be shared and discussed.

Have a process

Effective collaboration is not rocket science, but it does take some attention and practice to do well.

The four basic principles of a good collaborative process are these:

Principle	What you need to know	Your notes
Defined roles and responsibilities	A basic roster of participants and their expected contribution to the success of the project is a good starting point. More elaborate collaborative processes may involve a project charter with explicit details about decision-making authority, accountability and failure to perform	
Planned tasks and activities	At minimum, a project of this kind needs a timeline with milestones, broken down into discrete tasks. This planning and management tool must be shared and accessible for all team members through a shared environment such as an intranet, cloud-based platform or other project management solution. Do NOT rely on spreadsheets or checklists that need to be circulated via email – these are almost immediately out of synch when anyone touches it.	
Frequent check-in meetings to review progress against objectives, risks and challenges	Check-ins can be 15 minutes by phone or web-based meeting. The accountability of knowing a check-in is coming up provides the additional nudge that projects can need to stay on track, and the structure ensures that risks and challenges are raised before they become expensive or impossible to fix.	
Up-to-date tools	Documented processes, checklists, templates, and a collaborative digital environment are all essential for collaborations that run smoothly. These tools need to be kept up-to-date – there's nothing worse than trying to run a project based on out-of-date documentation.	

Questions for you to answer:

- Which principles of effective collaboration are we doing well?
- Which principles of effective collaboration could we work to improve in the next 6 months?
- If we make those improvements, what will the likely impact be on our future collaborations?

Debriefing

Project complete: We're done now, right?

Not quite. Best practice in collaborative processes recommends debriefing following the conclusion of the project. Ideally, a debriefing discussion includes as many of the participants of the collaborative team as possible. But even if this sort of final meeting is not possible, you can – and should – complete your own debriefing process to capture what you've learned.

Debriefing checklist

Use the following outline and checklist to guide a debriefing meeting

Roles and responsibilities

- Did team members fulfill their roles?
- Was there any expertise we should have included, or should have brought into the process sooner?
- Were any roles redundant?

Use of tools (checklists, project management or collaborative platforms, sandbox environments)

- Were tools useful, accurate and accessible?
- Were there any tools we wished we had but didn't?
- Were there any tools we had but didn't use?
- How could we get more value from our tools in the future?

Timeline and budget

- How well did we predict the timeline and budget in our planning?
- What could have helped us predict timeline and budget more accurately?

Communication

- How satisfied are we with how the team communicated?
- How satisfied were we with the frequency of communication?
- What were the biggest challenges with communication?
- What adjustments to communication should we consider?

Following debriefing, set specific tasks for any practical actions that emerge – these may include anything from updating your process checklists to seeking out new suppliers!

This process of reflection and ongoing improvement enables you to be an active – and more effective – collaborative partner on future projects.

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