

IMS Health & Quintiles are now



The Age of the Pharmaceutical Data Scientist

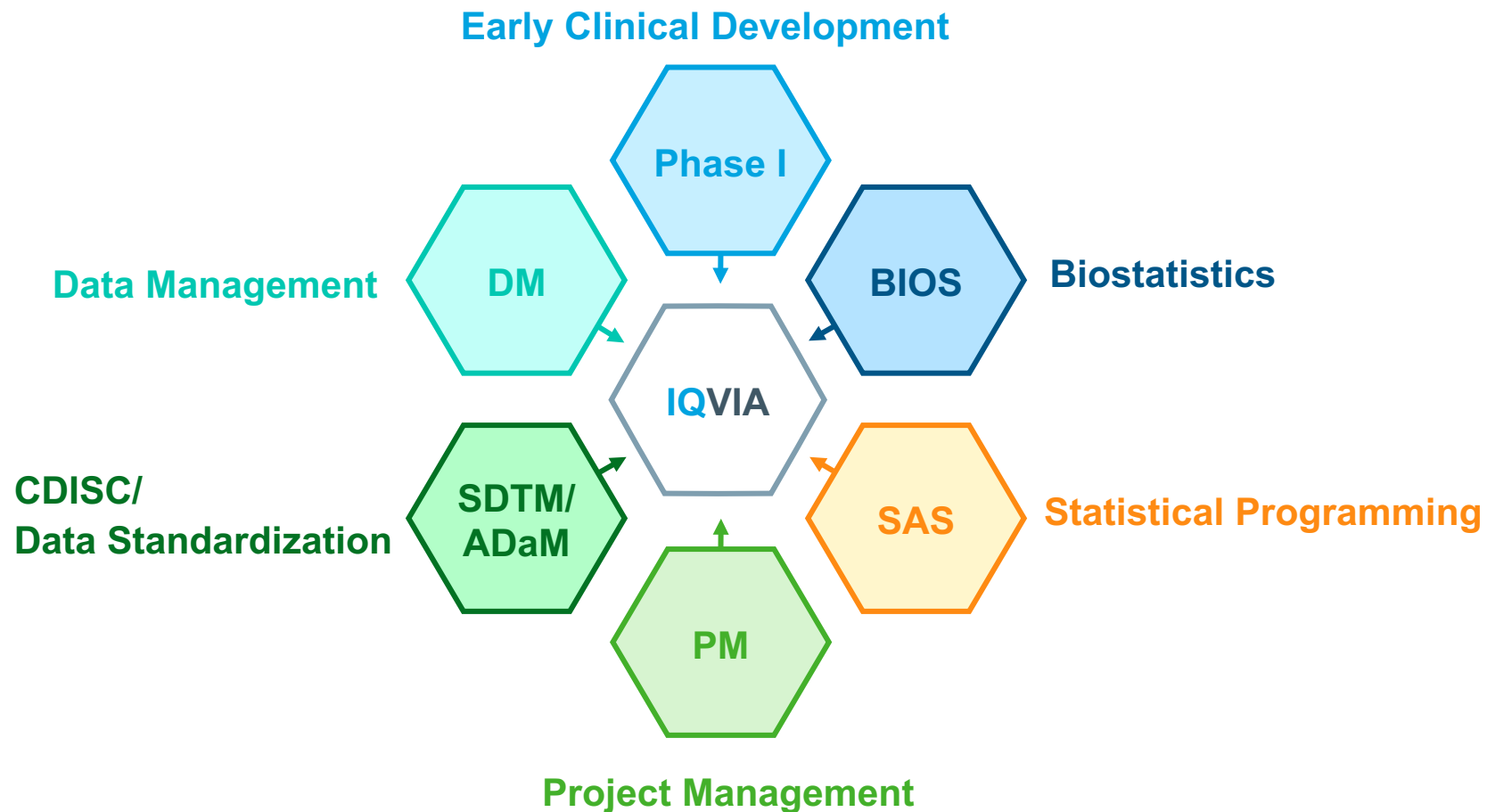
November 2017

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Opportunities



Traditional Roles

Traditional Roles

Project
Management

I'M A
STATISTICIAN

**TO SAVE TIME
LET'S JUST ASSUME
THAT I'M NEVER
WRONG**

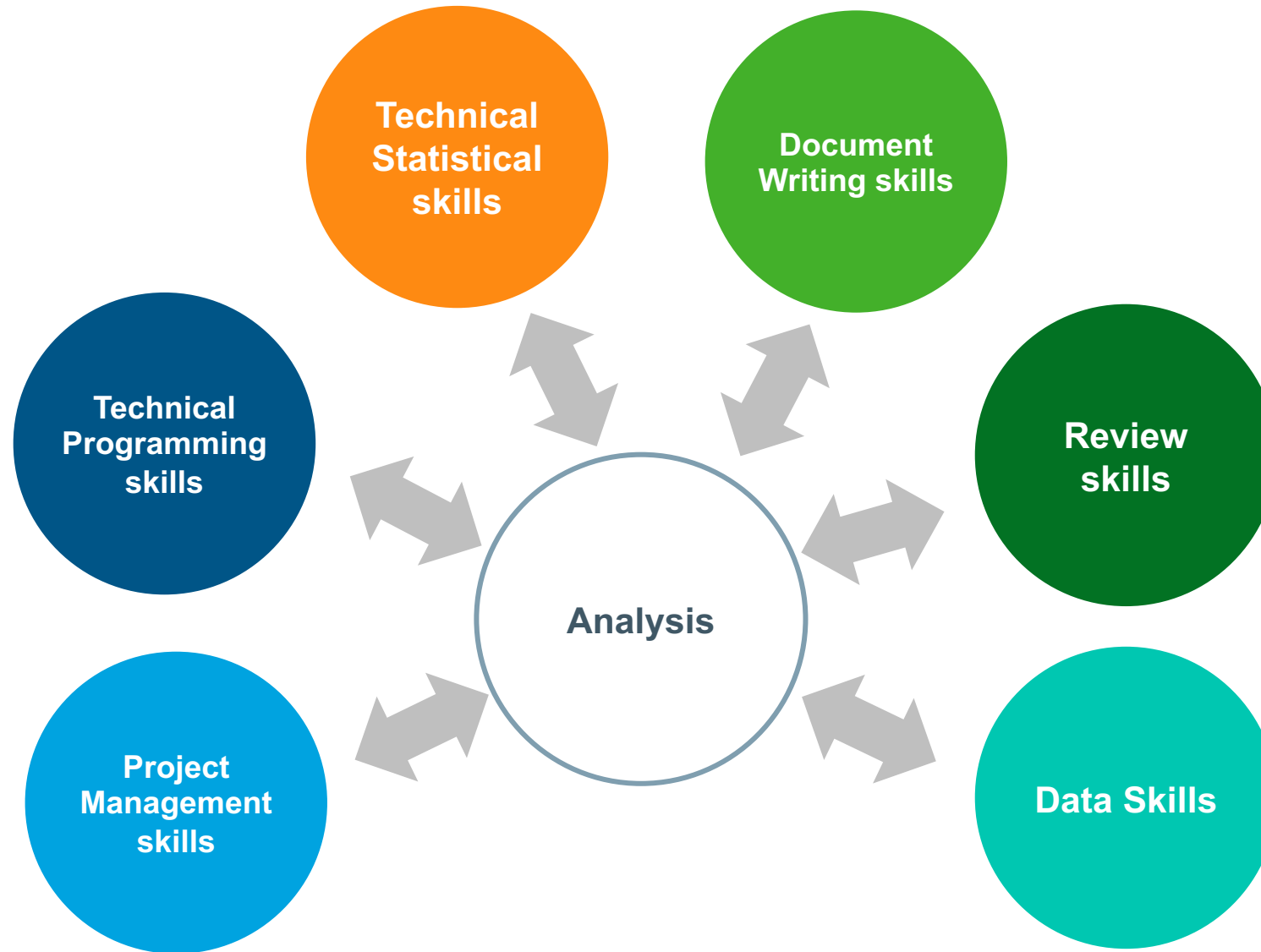
PROGRAMMER

🔊 n. [proh-gram-er]

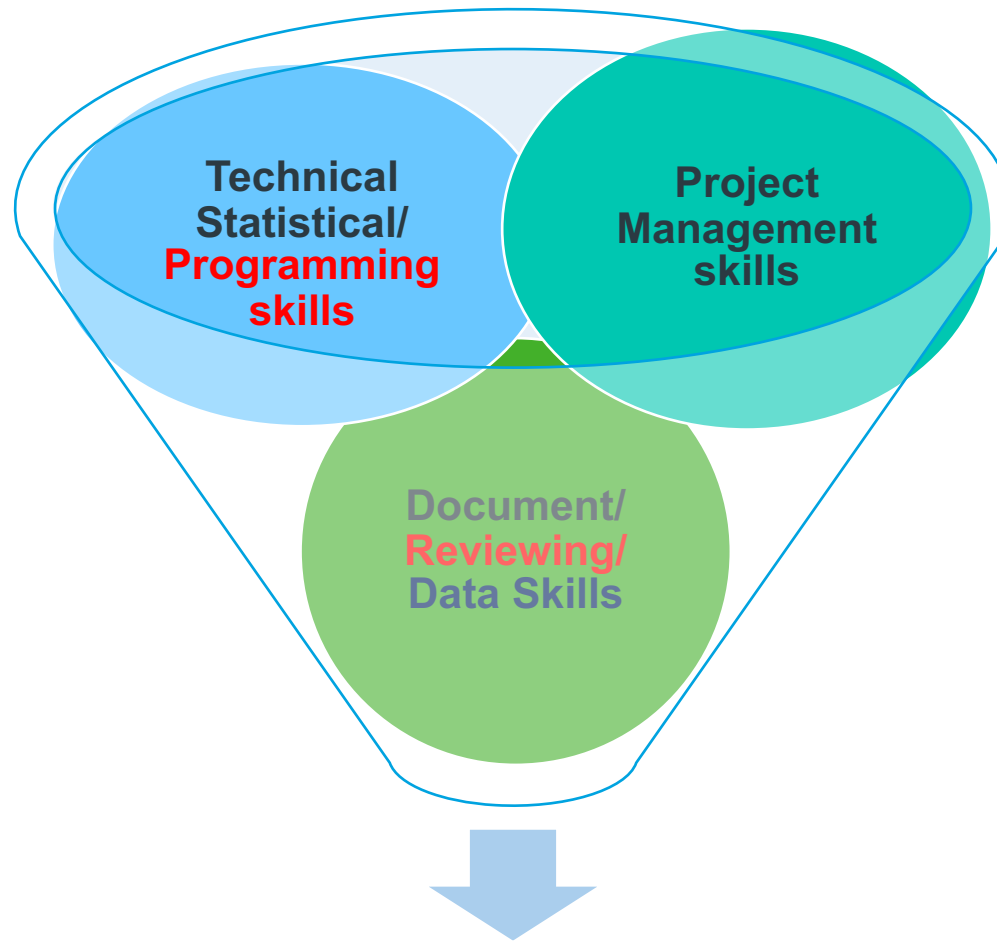
someone who solves a problem
you didn't know you had in a
way you don't understand.

Skills Required to Complete Analysis

Skills Required to Complete Analysis of Clinical Trial



Applying Skills Differently



Applying Skills Differently

Early Clinical Development/Phase I

Data Scientist A

(with technical programming background, statistical and project management experience)

- Project Management
- Write the SAP and setup TLF shells
- Write specifications
- Give technical statistical support to the programming team
- Validation programming activities

Data Scientist B

(with technical statistical background, programming experience)

- Review the SAP
- Review the Specifications (derivations)
- Review the Datasets and TLFs outputs

Data Scientist C

(with technical programming background)

- Production programming activities

Benefits?

One knowledge source
across SAP, Spec writing
and Programming

Smaller Teams, resulting in
consistency and better
quality

Reviewer already
knowledgeable about study

Applying Skills Differently

Phase II/ Phase III Clinical Trial Scenario - 1

Data Scientist A

(with technical programming background and statistical experience)

- Review SAP and TLF shells
- Write specifications
- Give technical statistical support to the programming team
- Test the statistical models included in the SAP
- Production programmer activities

Data Scientist C

(with technical statistical background and programming experience)

- Review the specifications (derivations)
- Review the datasets and TLFs outputs

Data Scientist B

(with technical statistical background and programming experience)

- Project Management
- Discuss with customer and test the statistical models included in the SAP
- Write the SAP and setup TLF shells
- Validation programming activities

Benefits?

One knowledge source across
SAP, Spec writing, study team
support and programming

Programming knowledge
within Indication will help with
details within SAP

Reviewer already
knowledgeable about the study

Applying Skills Differently

Phase II/ Phase III **Oncology** Clinical Trial Scenario - 2

Data Scientist A/D

(A - with technical programming background, statistical and project management experience)

(D - with project management background)

- **Project Management**
- Write the SAP and setup TLF shells
- Discuss the statistical models with the customer and give input in the SAP sections
- Write specifications
- Provide technical statistical support to the team
- Review the datasets and TLF outputs

Data Scientist B

(with technical statistical background and programming experience)

- Review SAP and setup TLF shells
- Review the specifications
- Test the statistical models included in the SAP
- Validation programming activities

Data Scientist C

(with technical programming background and statistical experience)

- Production programming activities

Benefits?

One knowledge source across SAP, Spec writing, study team support and programming

Programming knowledge within Indication will help with details within SAP

Reviewer already knowledgeable about study

Conclusion

Conclusion

New Age Pharmaceutical Data Scientist

Situation

- Multiple team members with overlapping skills

Solution

- Setup the roles and responsibilities according to skill level based on the background and expertise instead of having preassigned tasks per role
- Enable employees to spend more time of tasks they enjoy and apply their expertise

Result

Highly effective team: consisting of more accountable and a happier individuals

Questions?



Skill set and assignment

	Project Management	Statistical Programming	Biostatistics	Review	Data	Line Management
Associate Data Scientist						
Associate Data Scientist						
Data Scientist 1						
Data Scientist 1						
Data Scientist 2						
Senior Data Scientist						
Senior Data Scientist						