



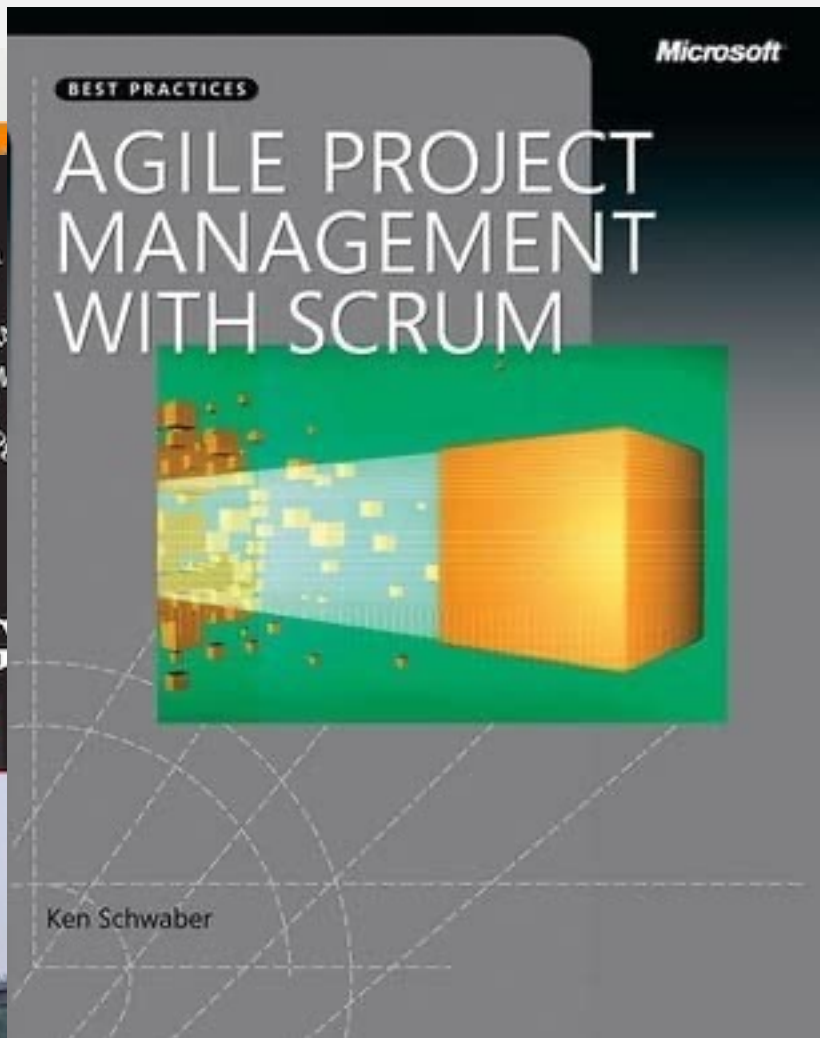
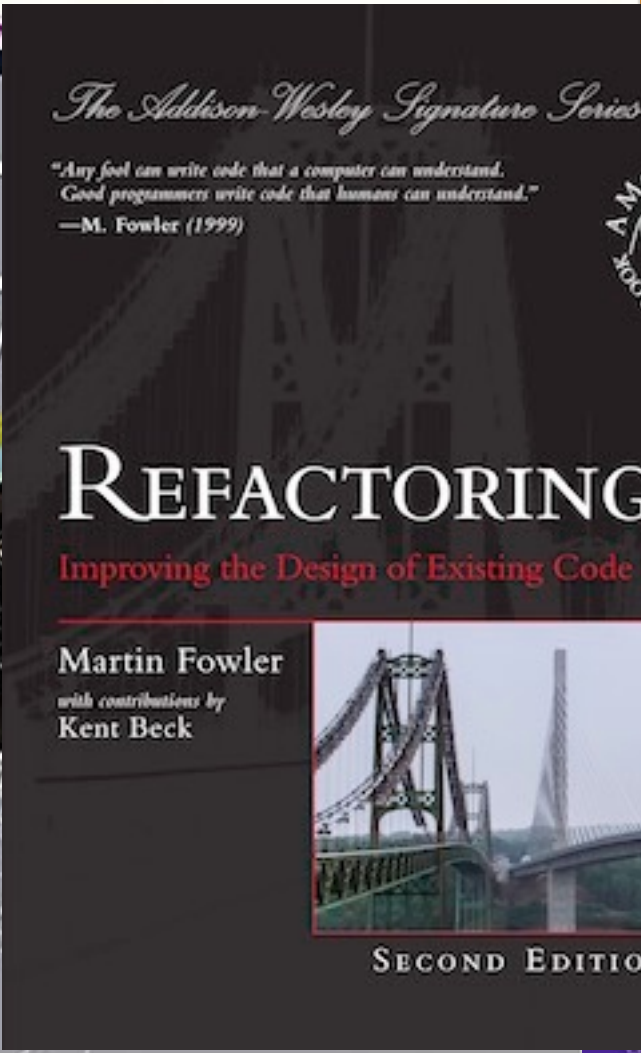
95.20 Métodos y Modelos en Ingeniería de Software I

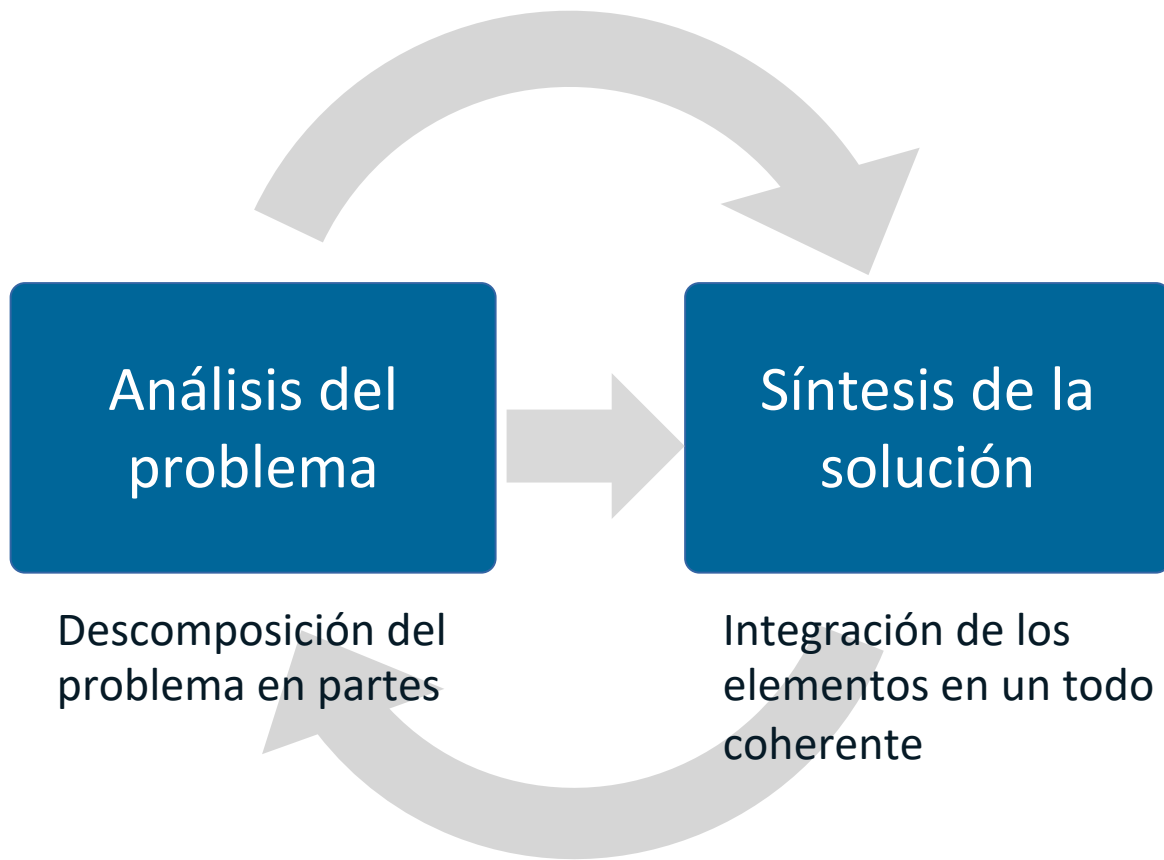
Cap.13: Desafíos de la Ingeniería de
Software

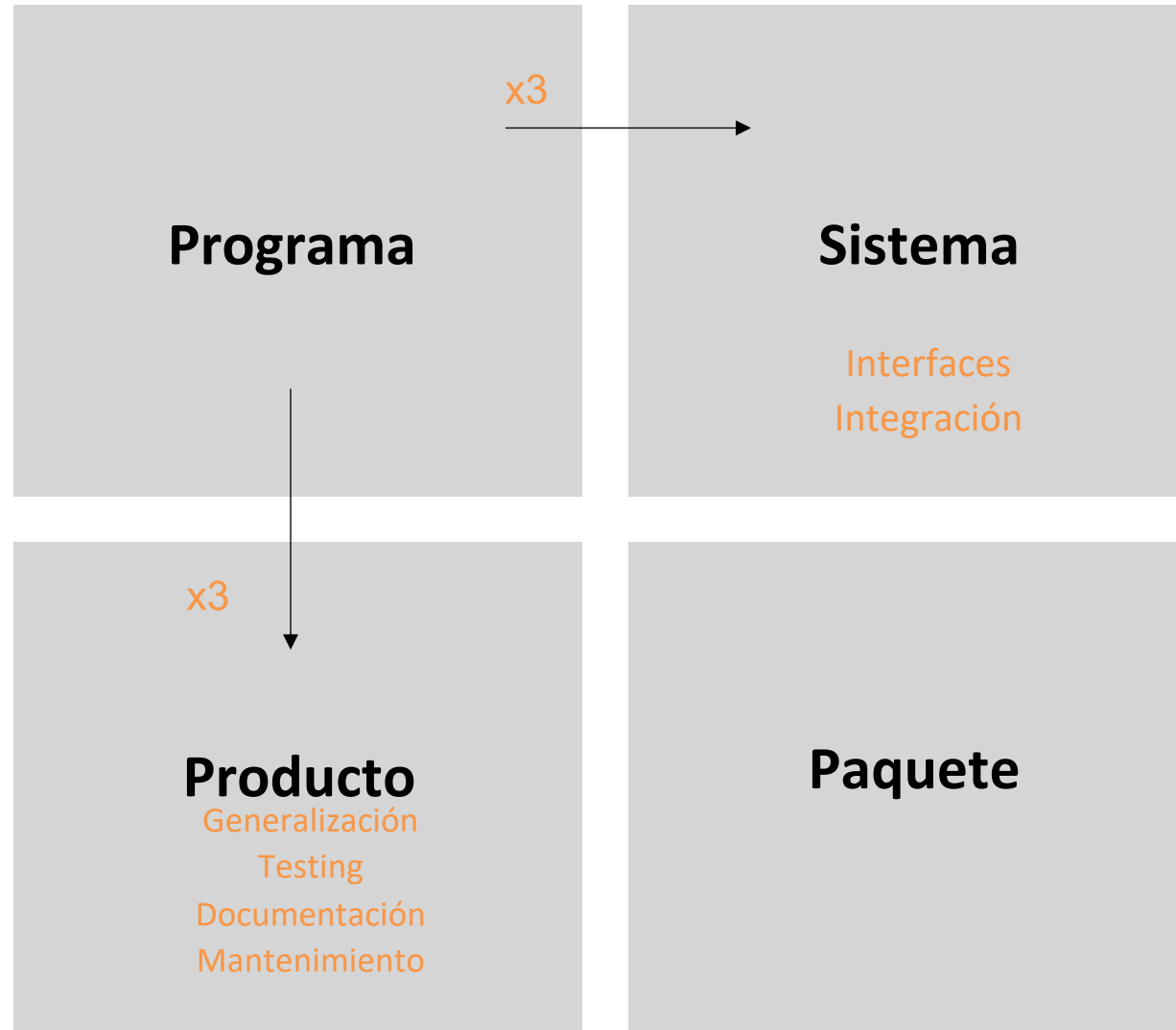
Agosto 2020



**FACULTAD
DE INGENIERIA**
Universidad de Buenos Aires



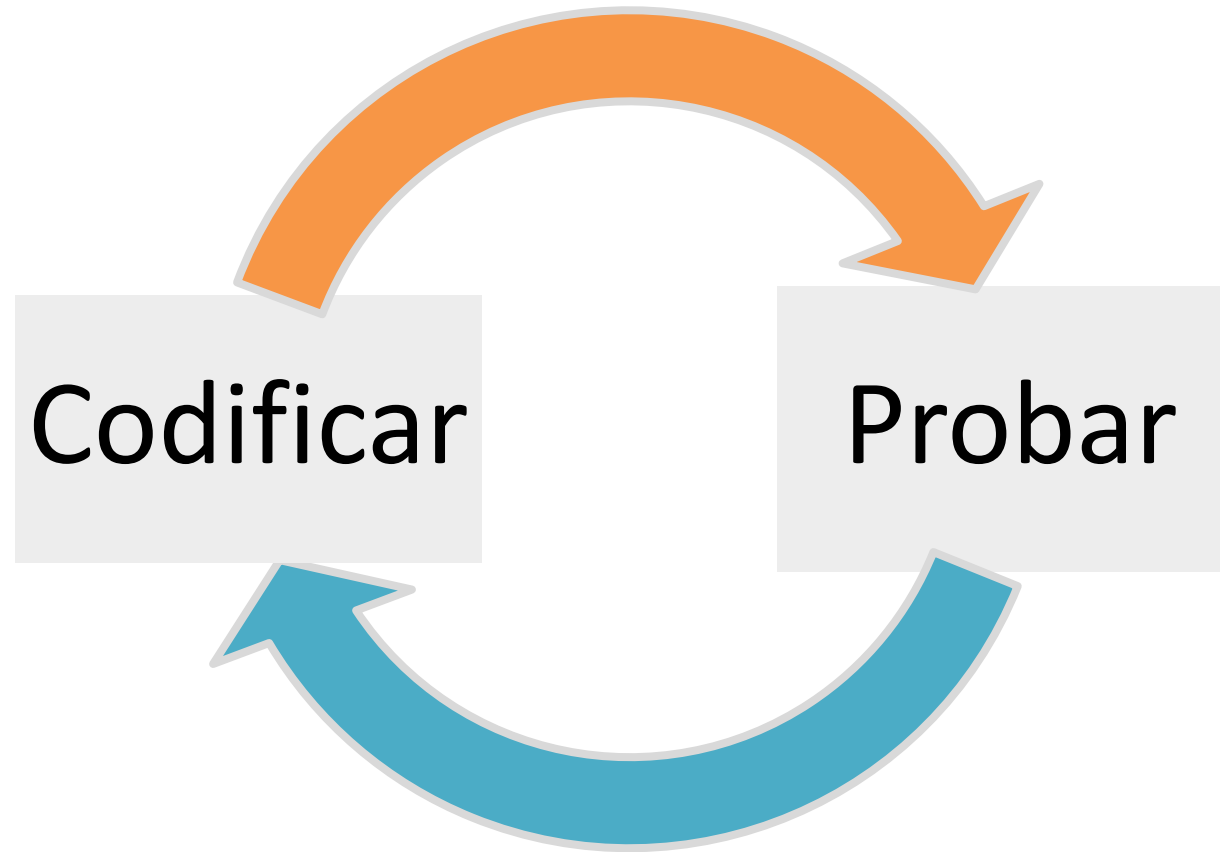




[Brooks Cap.1]

Un modelo de desarrollo no escalable

Code & Fix



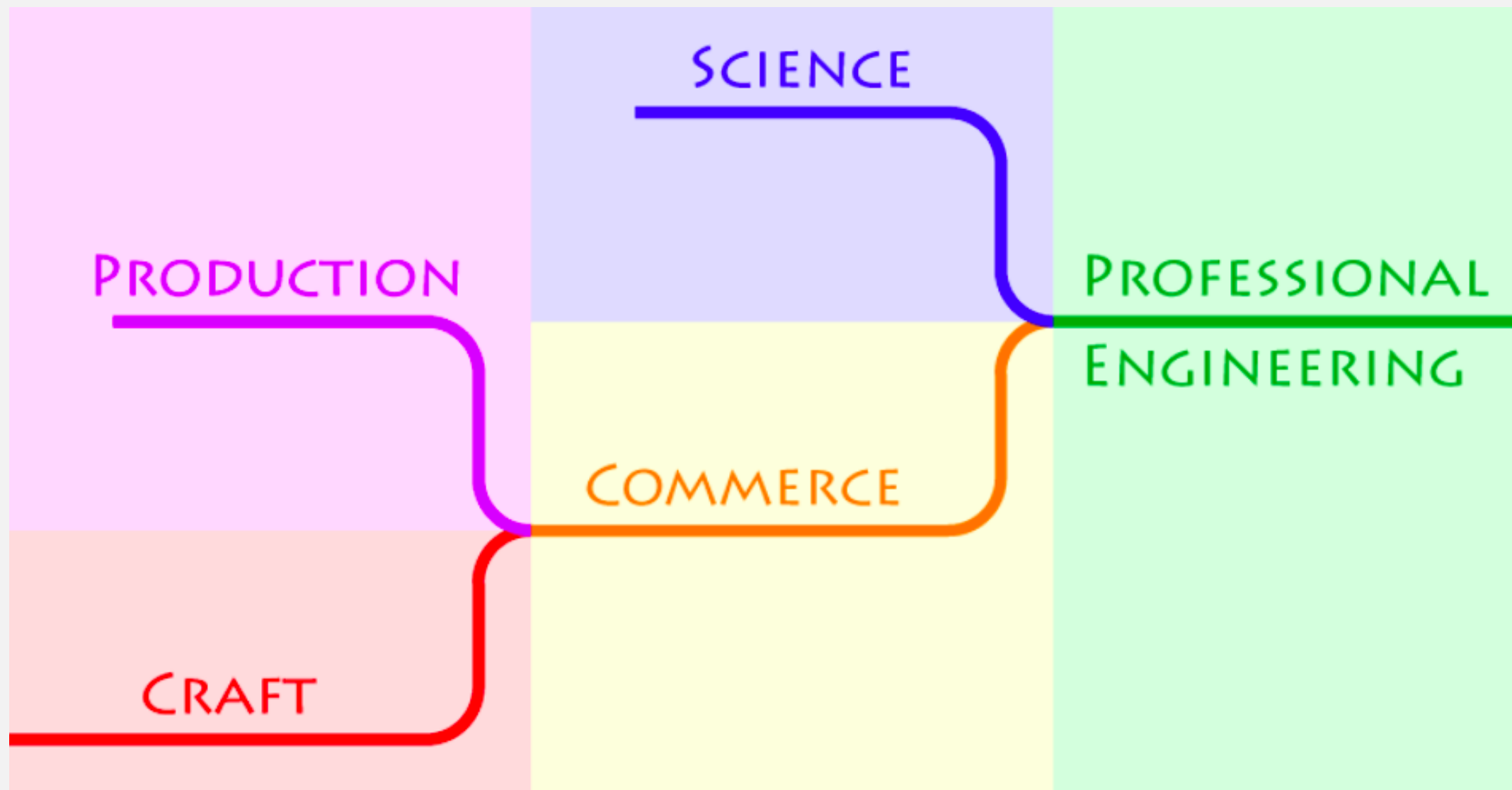


“Any organization that designs a system (defined broadly) will produce a **design** whose structure is a **copy of the organization's communication structure.**”

Melvin Conway

http://www.melconway.com/Home/Conways_Law.html





Virtuosos y amateurs
con talento

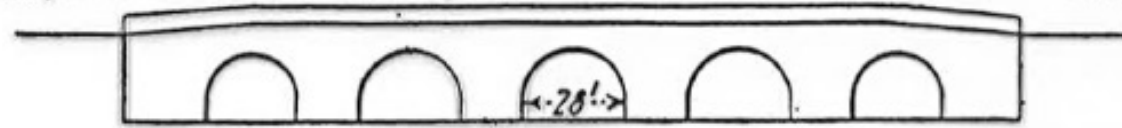
Artesanos
calificados

Profesionales
educados

Ponte di Augusto, Rimini

Waterway below floor level 35%

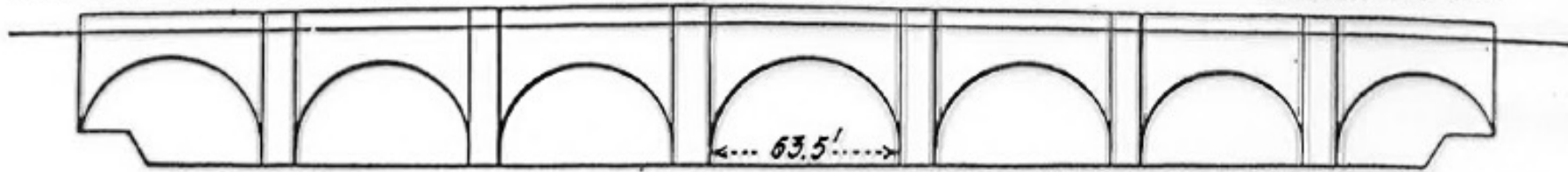
Roman 14 A.D.



Pont Neuf (North Section), Paris

Waterway below floor level 50%

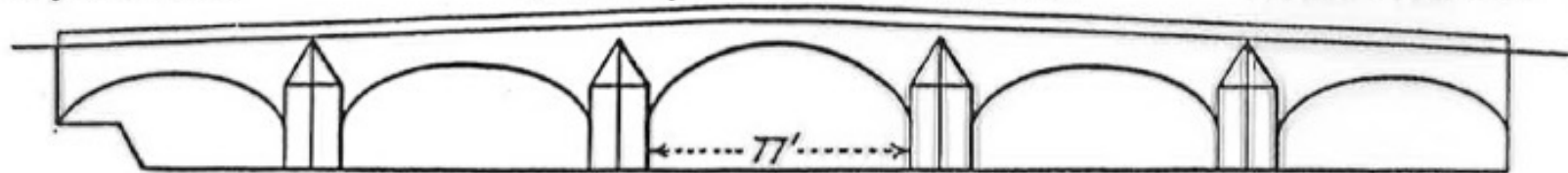
French 1578-1607



Pont Royal, Paris

Waterway below floor level 55%

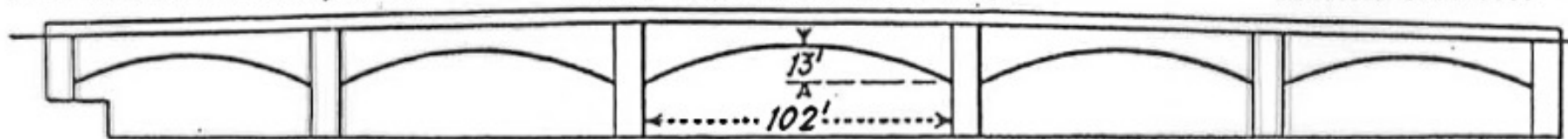
French 1685-1687



Pont de la Concorde, Paris

Water below floor level 65%

French 1787-1791



The Evolution of the Stone-arch Bridge



Desafíos

Development, operations, and service must become one continuous and lean business process.

50 Years of Software Engineering: Progress and Perils Christof Ebert, Vector Consulting Services
IEEE Computer Society. IEEE Software, September/October 2018



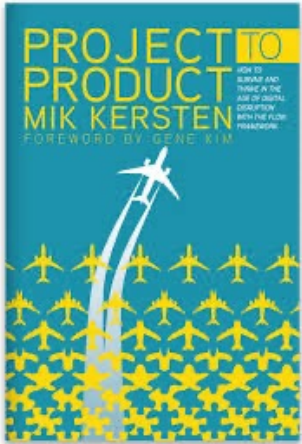
Desafíos

Diez tecnologías de alto impacto en el futuro inmediato

- Inteligencia artificial y machine learning
- Conectividad y IoT
- Transformación digital y big data
- Software autónomo y agentes
- Computación móvil
- Internet y aplicaciones
- Desarrollo ágil
- Model-Driven Development y UML
- Procesamiento distribuido y paralelo
- Open source

Desafíos

Algunas predicciones para los próximos años



- *An Age of Invention Will Pivot to an Age of Adoption*
- *Software Complexity Will Drive Specialization*
- *As Automation Grows, so Will the Demand for IT Professionals*
- *Coding Will Evolve into Domain Expertise and Data Modeling*
- *AI Will Become Its Own Field of Practice*

Five Predictions for the Coming Decades of Software Mik Kersten, Tasktop
IEEE Computer Society. IEEE Software, September/October 2018





“The best way to
predict the future
is to create it”

Peter Drucker