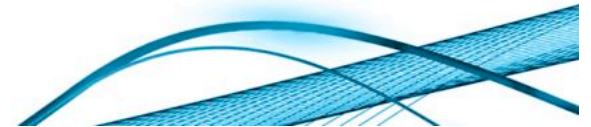


Building the Next Generation of Technical Leaders

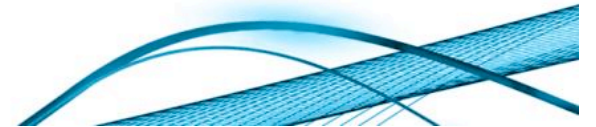
patrick.kua@thoughtworks.com

<http://www.thekua.com/atwork>

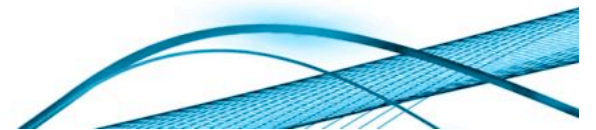
Twitter: @patkua

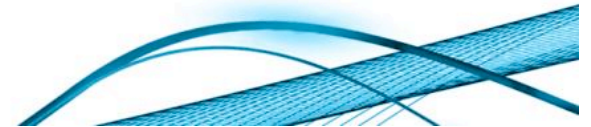
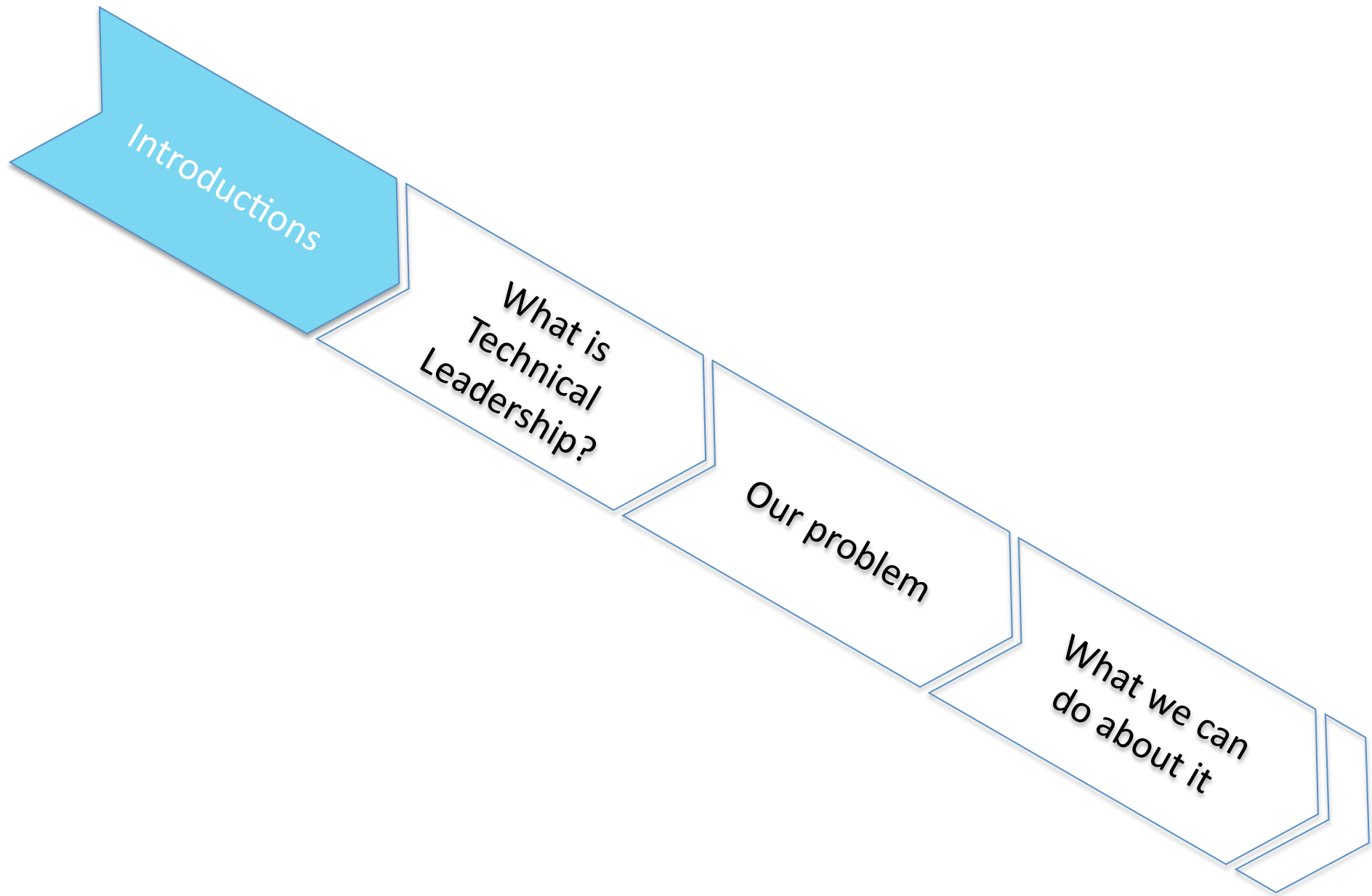


Housekeeping



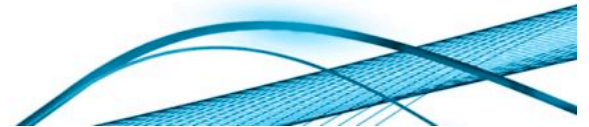
Our Journey

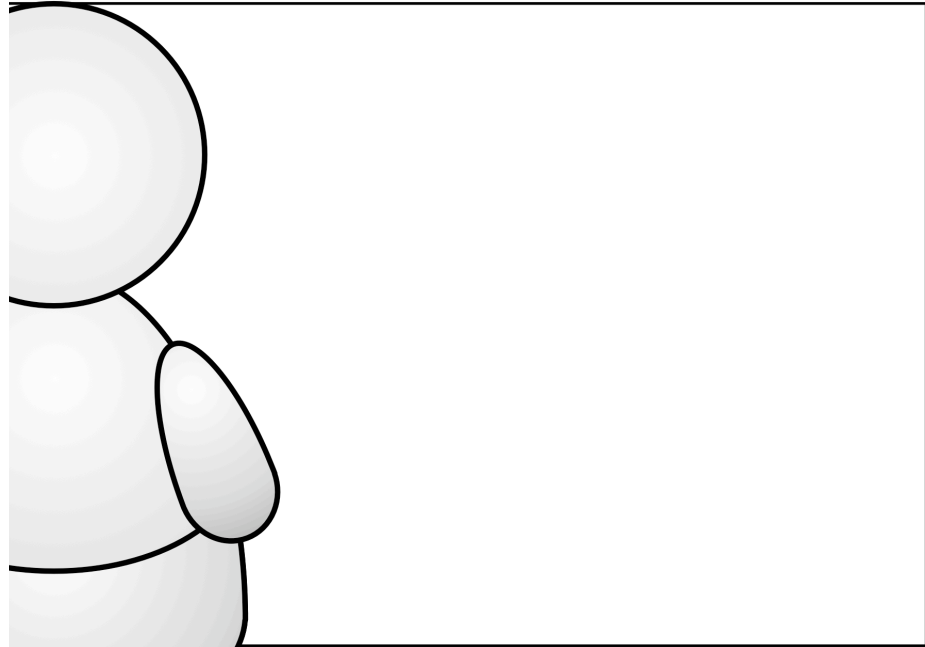




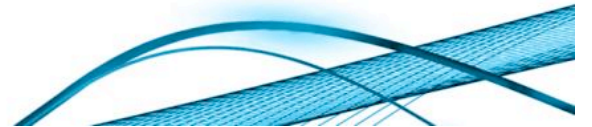


Who am I?





Who are you?

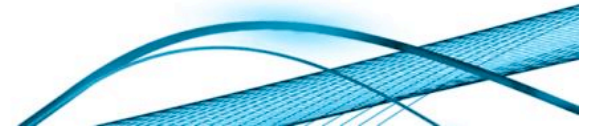


Introductions

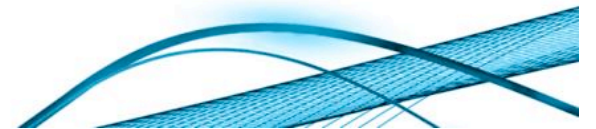
What is
Technical
Leadership?

Our problem

What we can
do about it



Ubiquitous Language!



Define...

Technical Leader

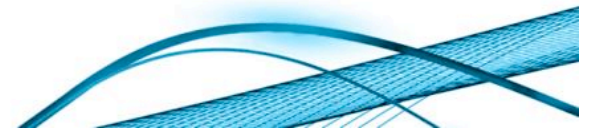
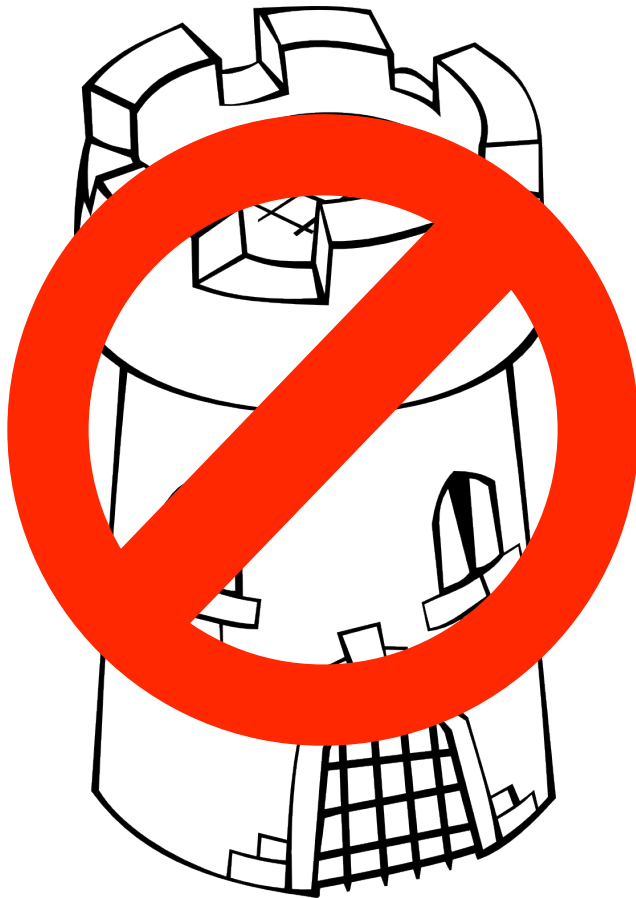


A leader who spends at least 30% of their time coding with the team

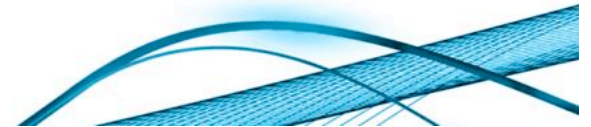


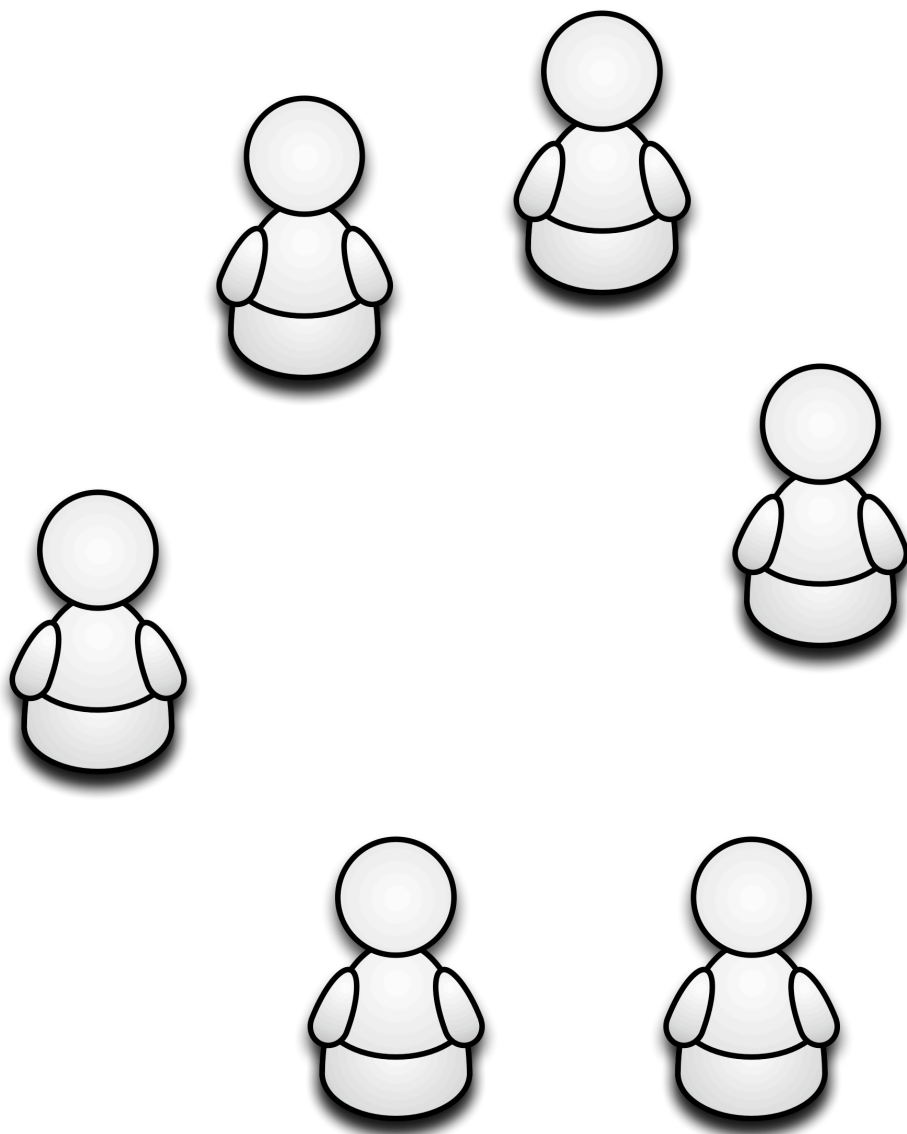
(our definition for today)





Why do we have Technical Leaders?





GOAL

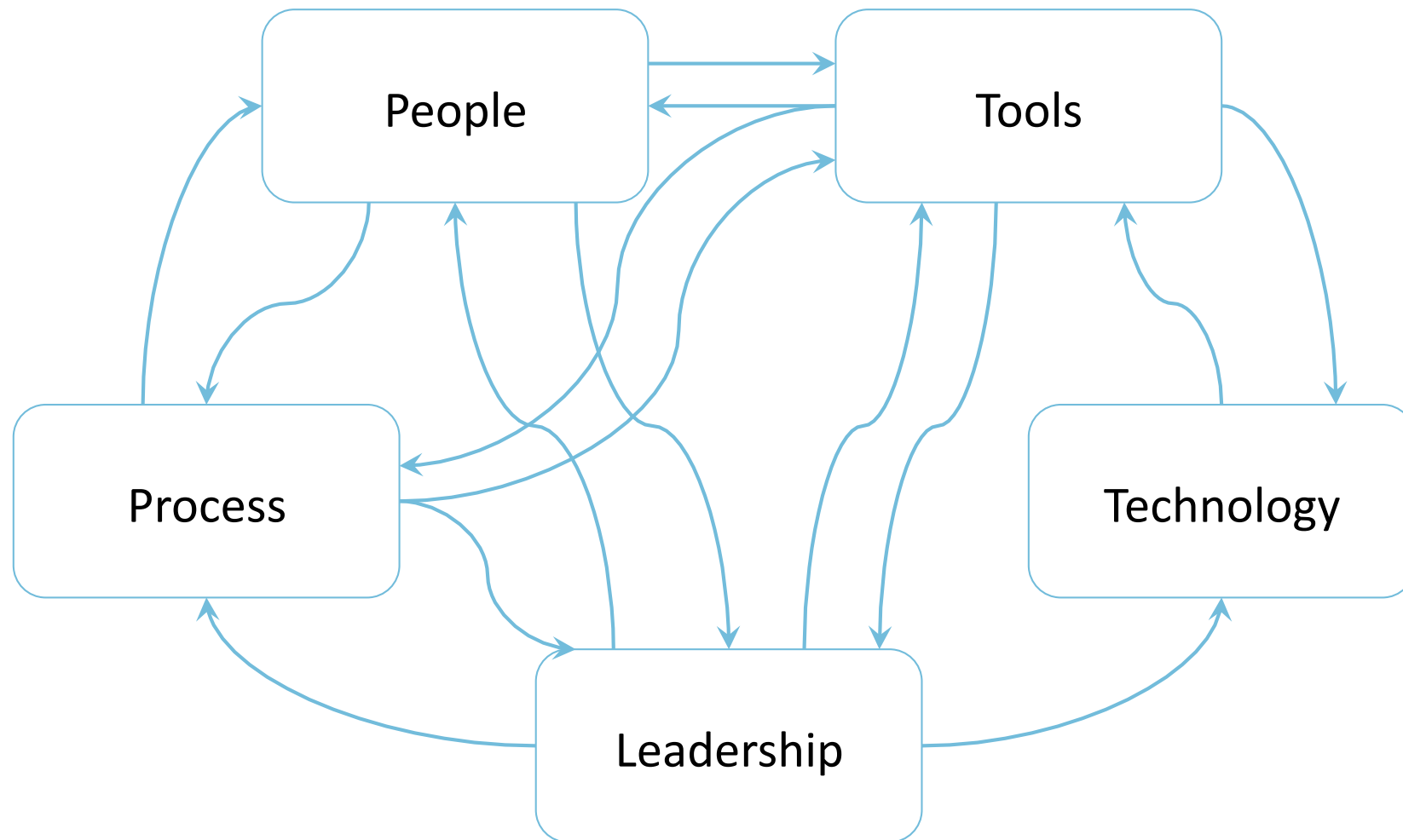


*"The unspoken truth about
managing geeks"*

Source: By Jeff Ello via Computer World - <http://bit.ly/15Rm4z>



Software systems



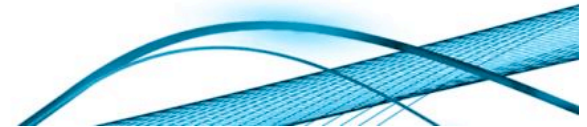


Introductions

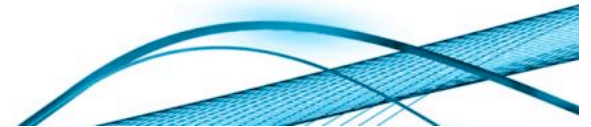
What is
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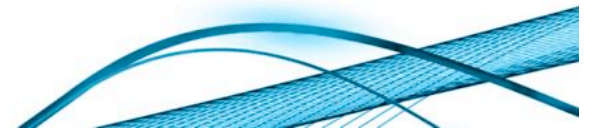
Our problem

What we can
do about it

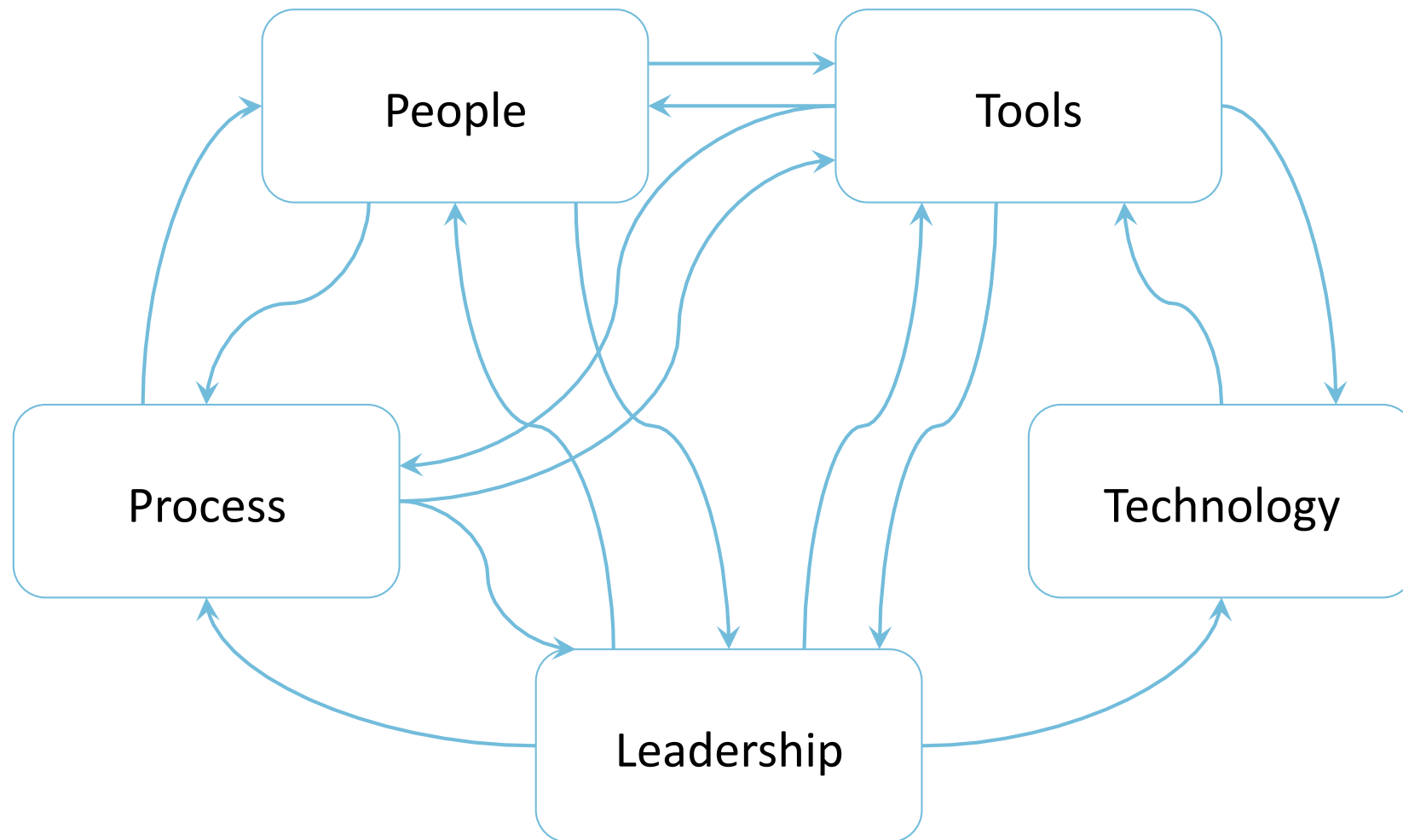


Why do IT projects fail?

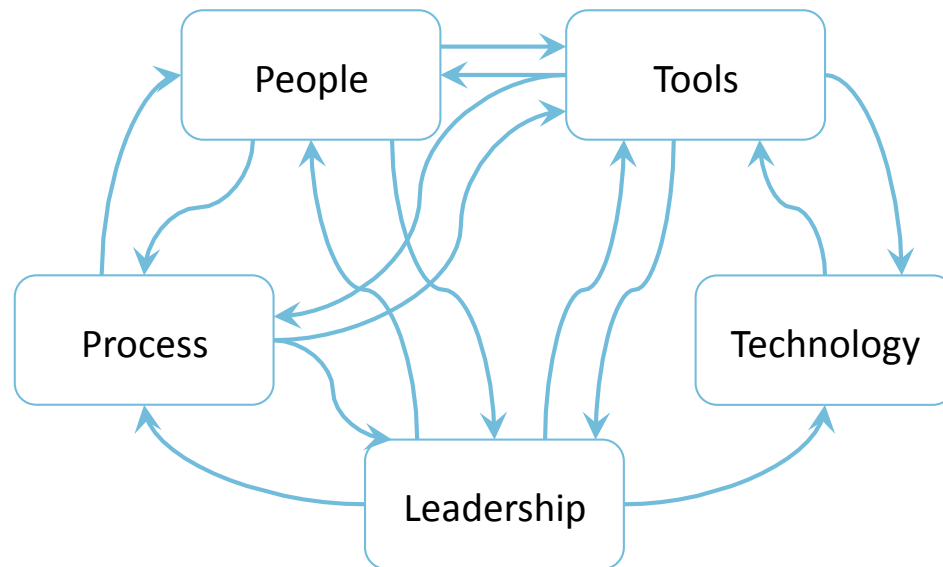




Software systems



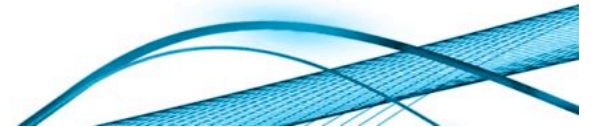
"A bad system will beat a good person every time"



W. Edwards Deming

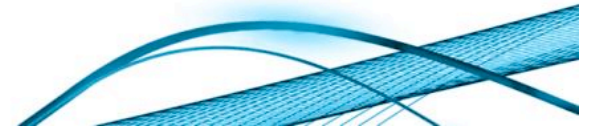


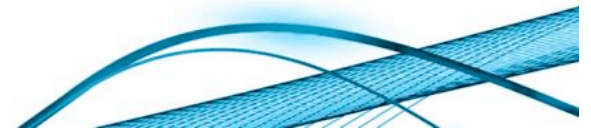
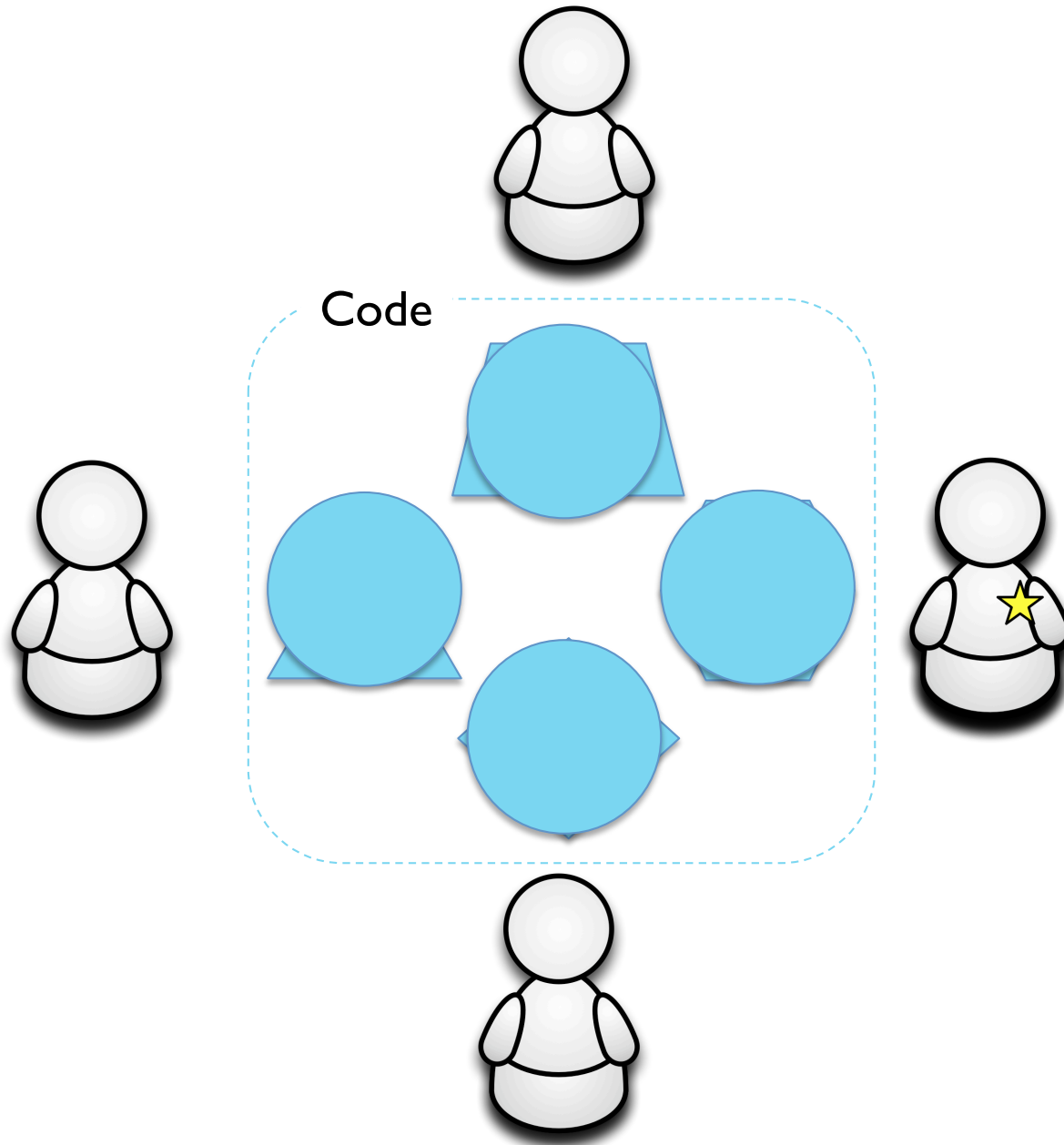
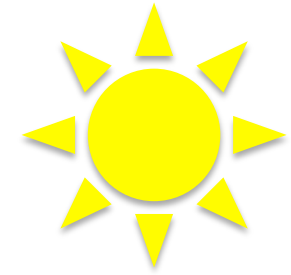
Examples of damaging behaviour...

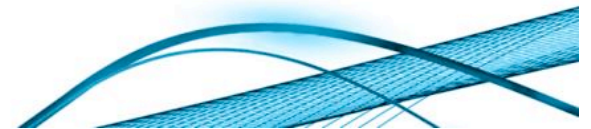
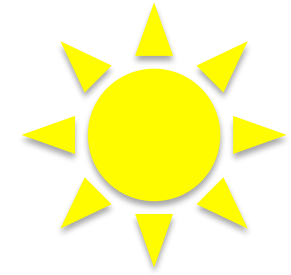
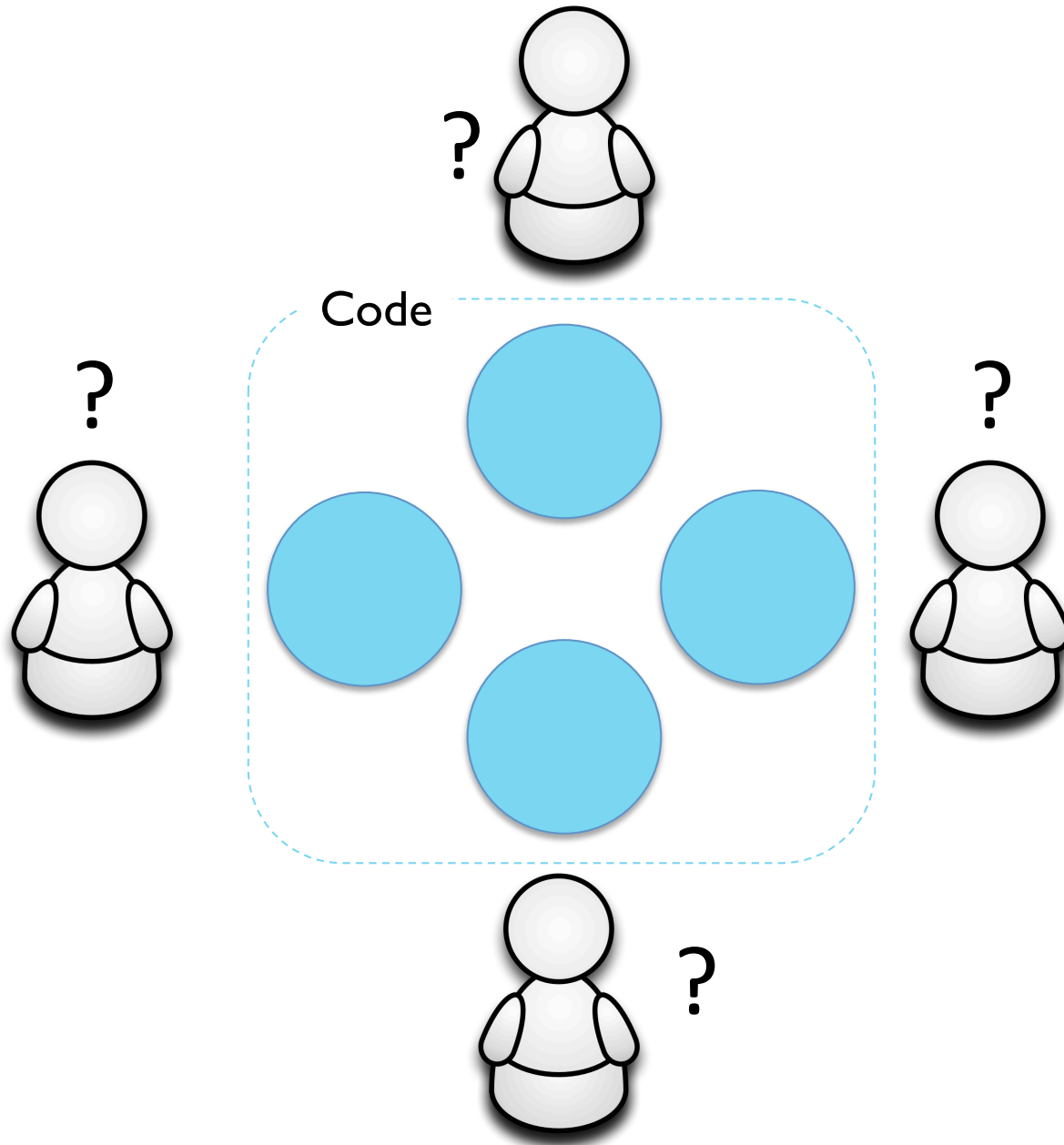


Early morning refactor

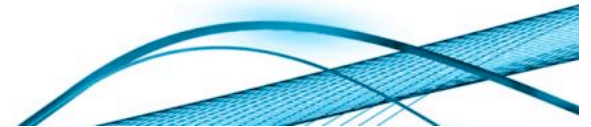
(late evening)



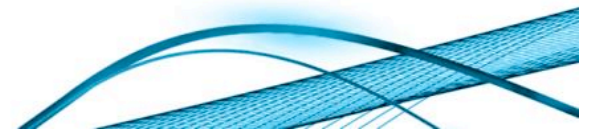




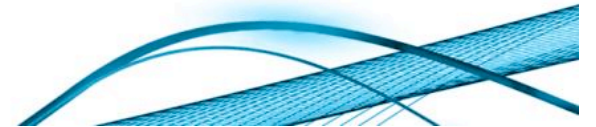
~~“Benevolent”~~ Dictator



DIY



“The hard problems are mine”

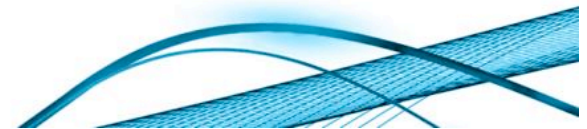
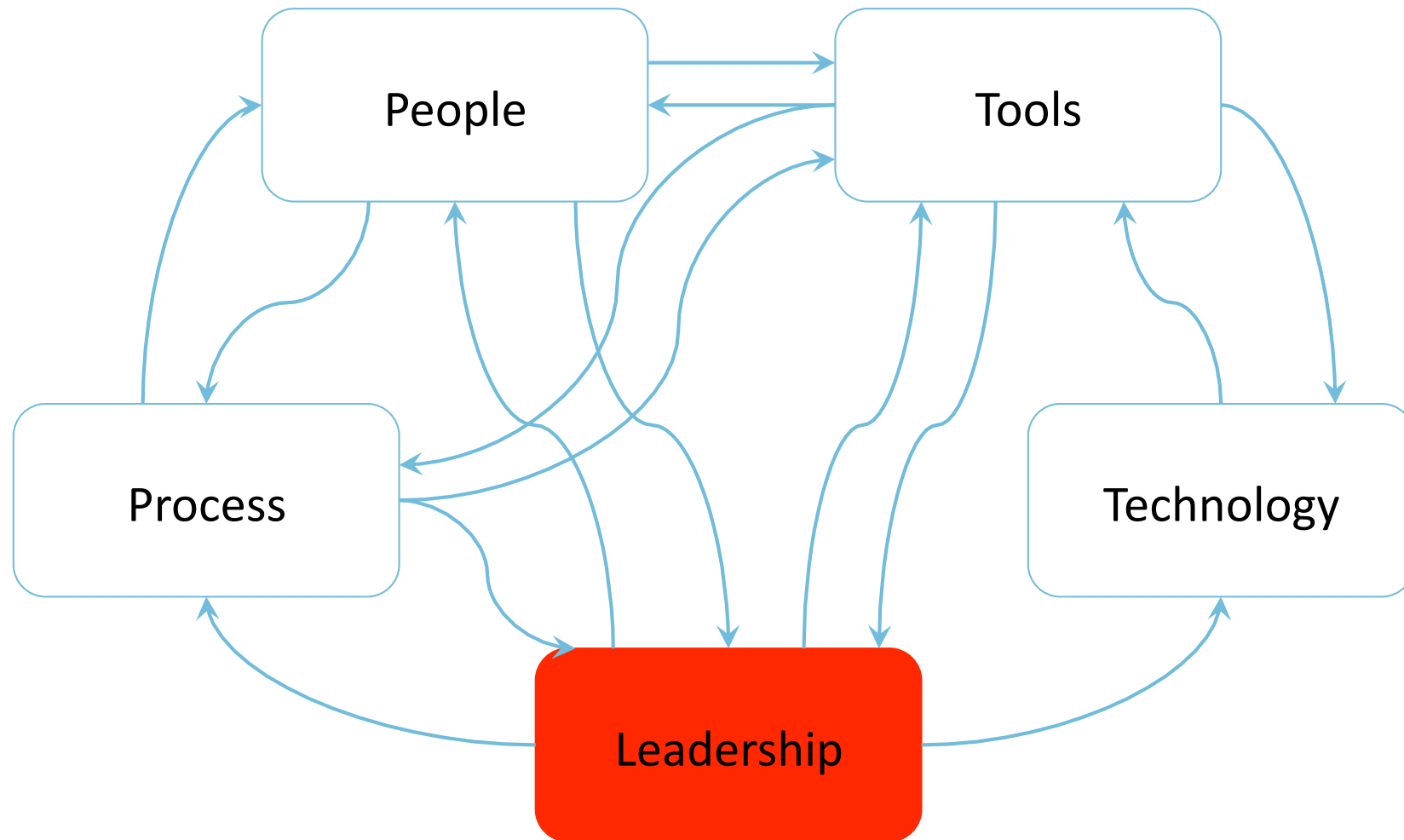


*Our current system does not
create effective Technical
Leaders*

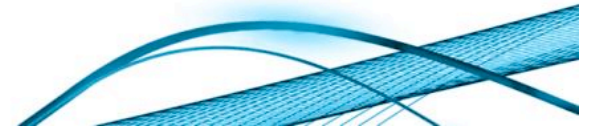
Problem Statement



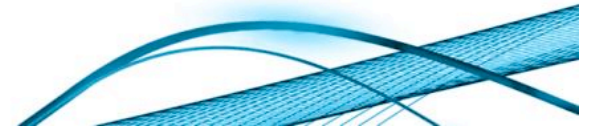
Software systems



Should we be worried?



Net Negative Producing Programmer



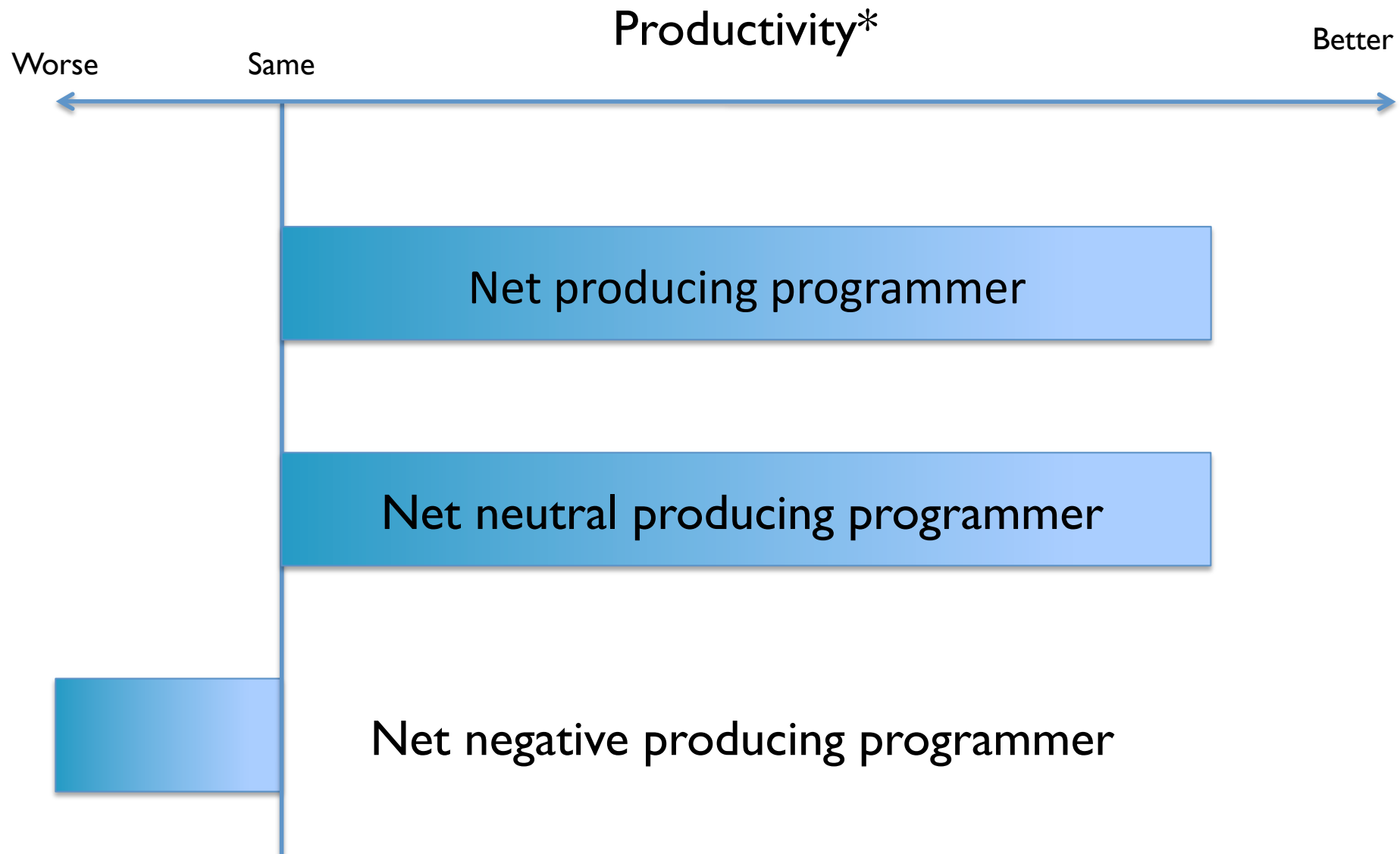
Define...

Net Negative Producing Programmer

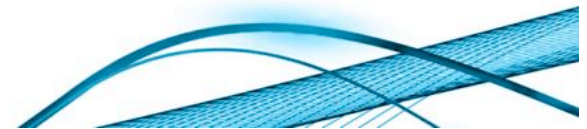
(noun) [a person] who insert enough spoilage to exceed the value of their production

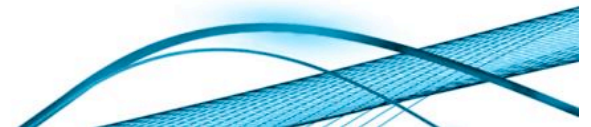
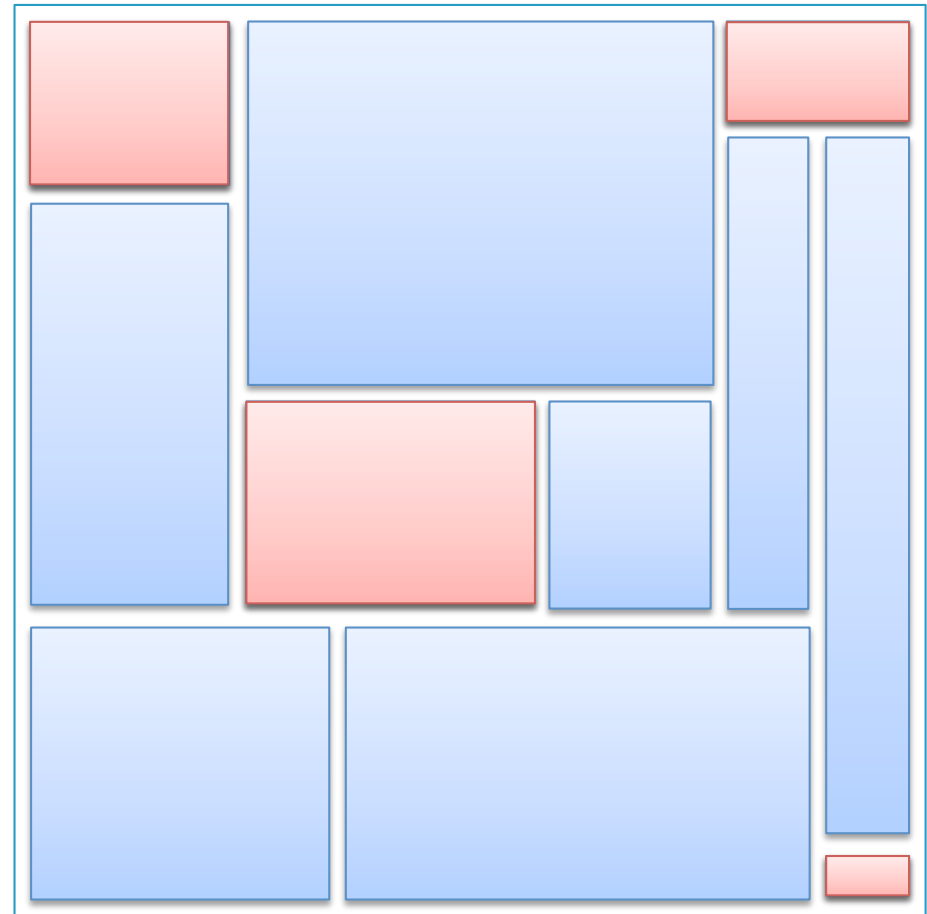
*“The Net Negative Producing Programmer”
by G. Gordon Schulmeyer*





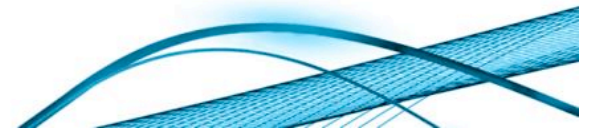
*If you can measure productivity

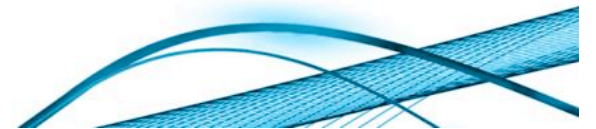
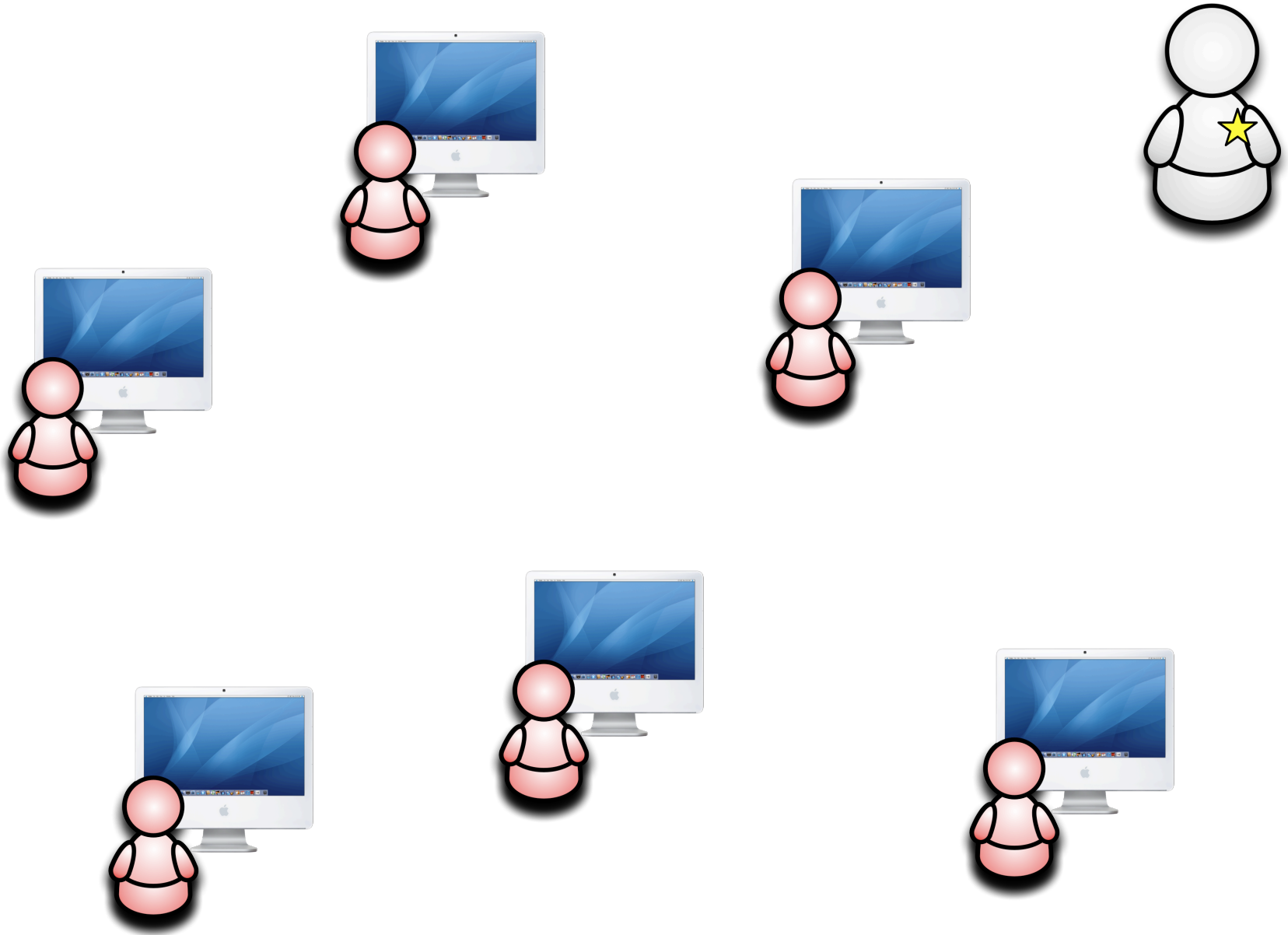


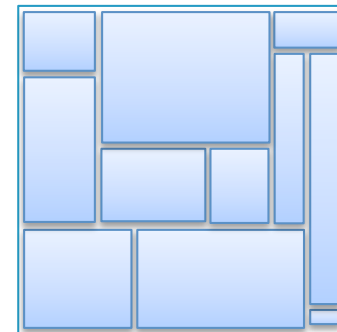
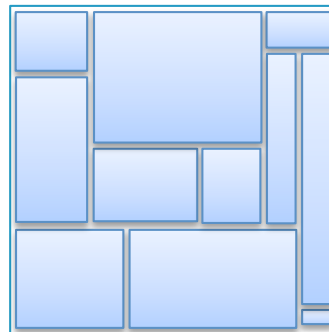
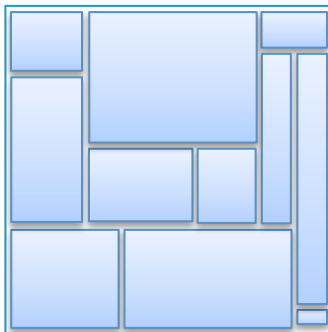
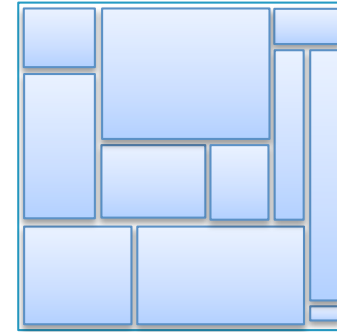
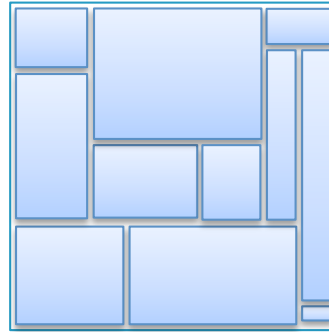
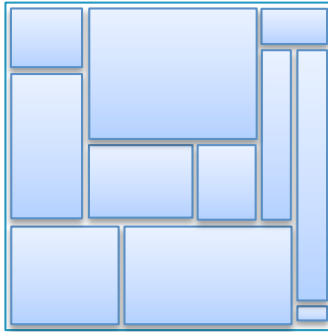


Net Negative Producing

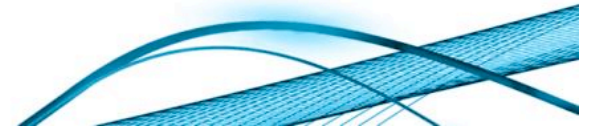
Technical Leader



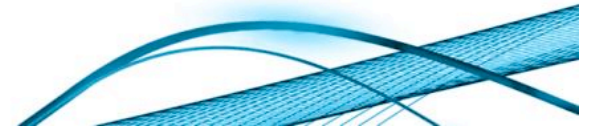


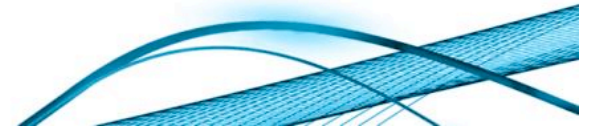
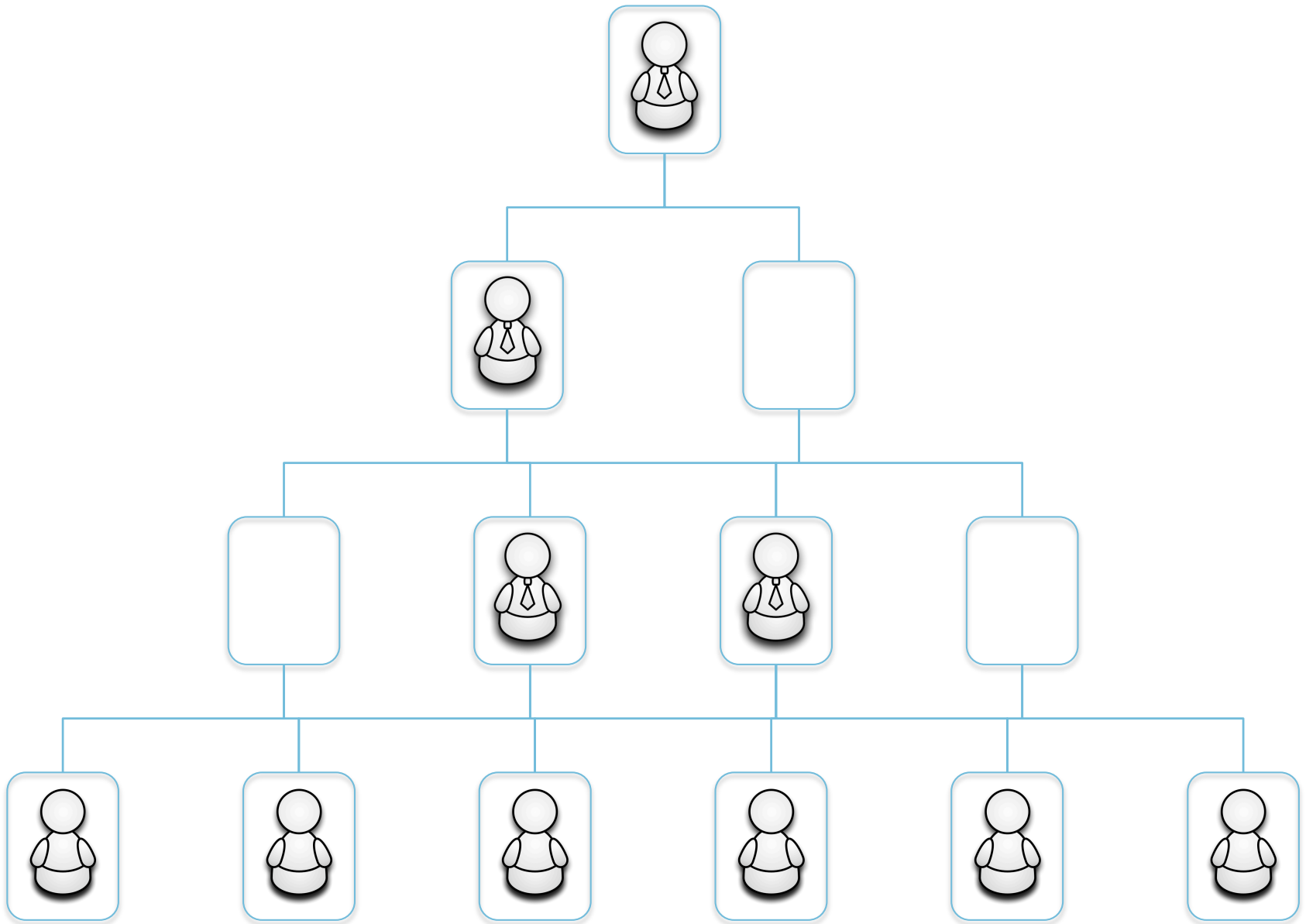


But how did they get there?



It's all perfectly logical...





"In a hierarchy every employee tends to rise to his level of incompetence"

"The Peter Principle" (1969)

by Dr. Laurence J. Peter and Raymond Hull



Development

Implementing new
functionality

Changing existing
behaviour

Writing tests

Clean code

Challenging
assumptions

Offering alternative
solutions

Ensuring everyone
works towards a vision

Resolving
conflict

Responsible
for delivery

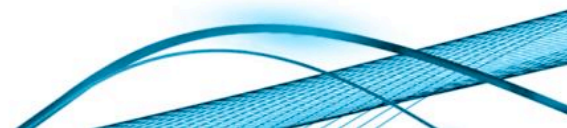
Growing talent

Story
telling

Empowering
everyone to make
decisions

Creating a healthy team
environment

Leadership



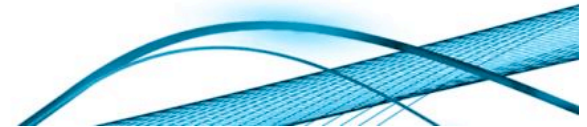


Introductions

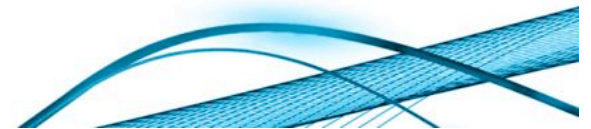
What is
Technical
Leadership?

Our problem

What we can
do about it



Step 1: Recognise the different skillset



Development

Implementing new
functionality

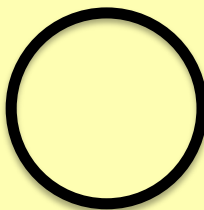
Changing existing
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Writing tests

Clean code

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solutions



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works towards a vision

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Responsible
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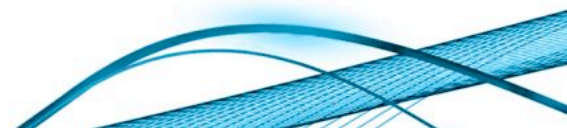
Story
telling

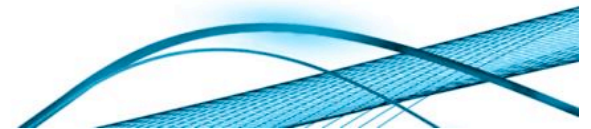
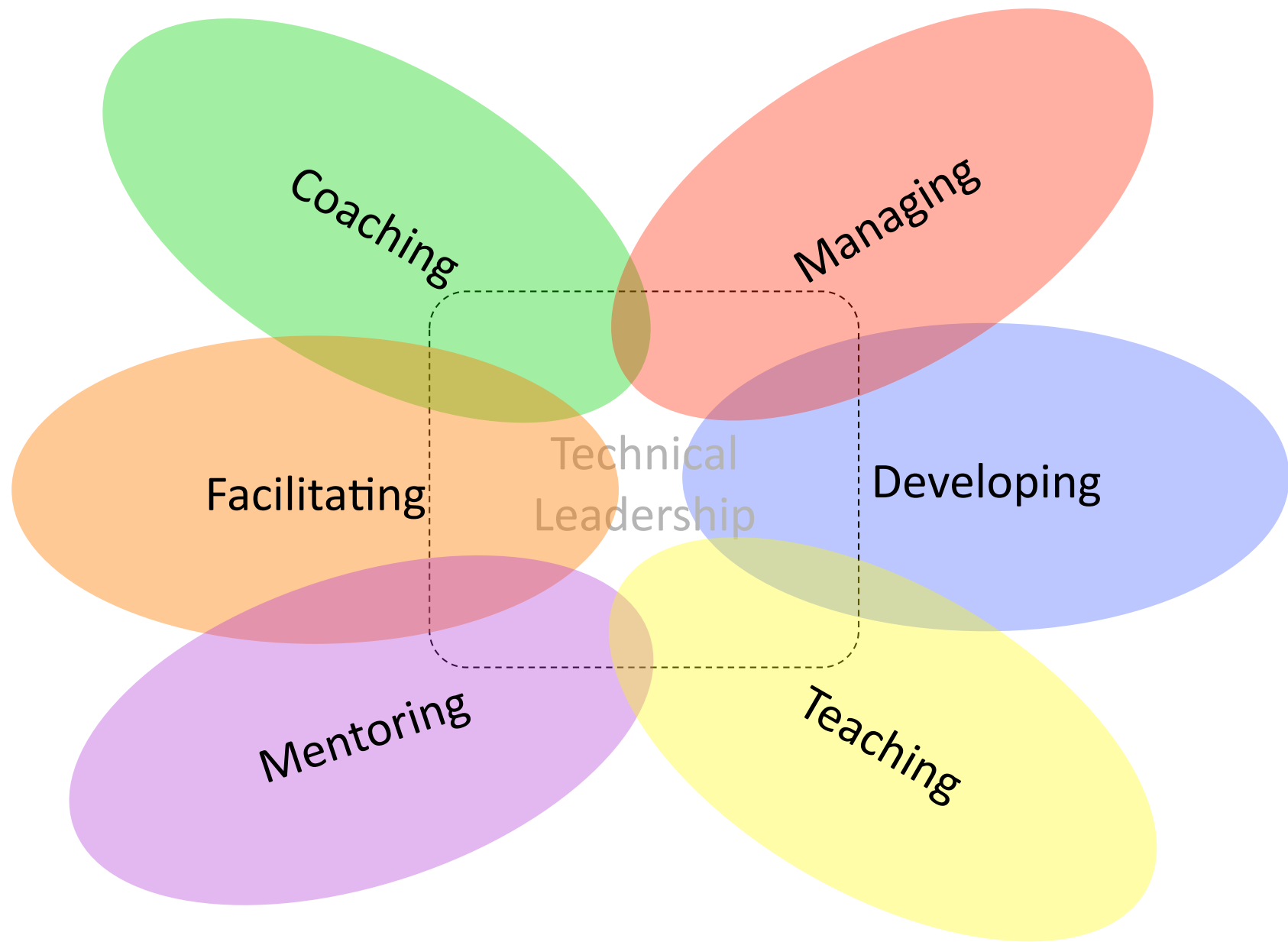
Empowering
everyone to make
decisions



Creating a healthy team
environment

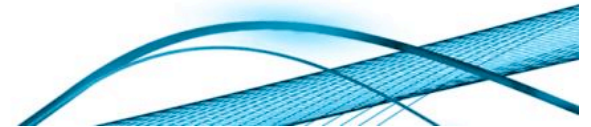
Leadership



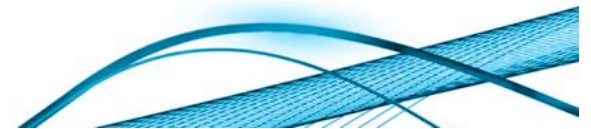


Step 1: Recognise the different skillset

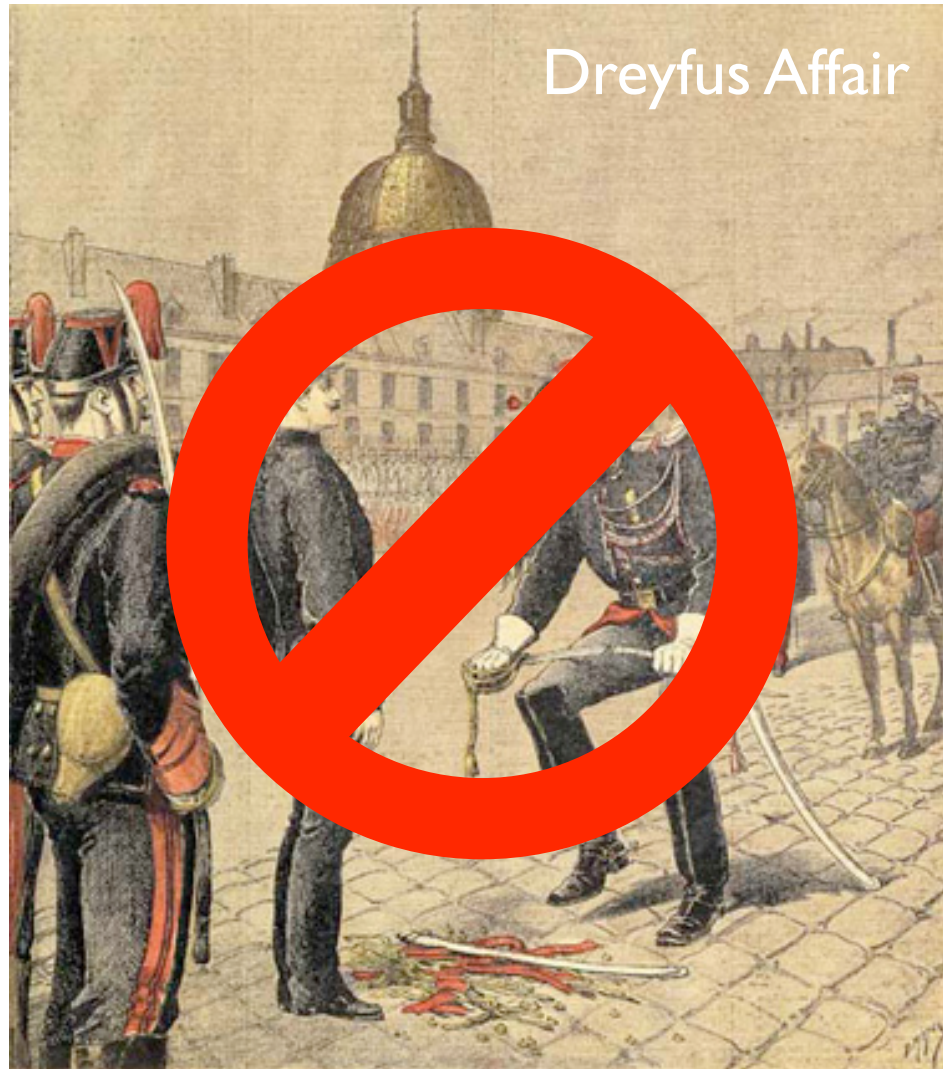
Step 2: Develop competence



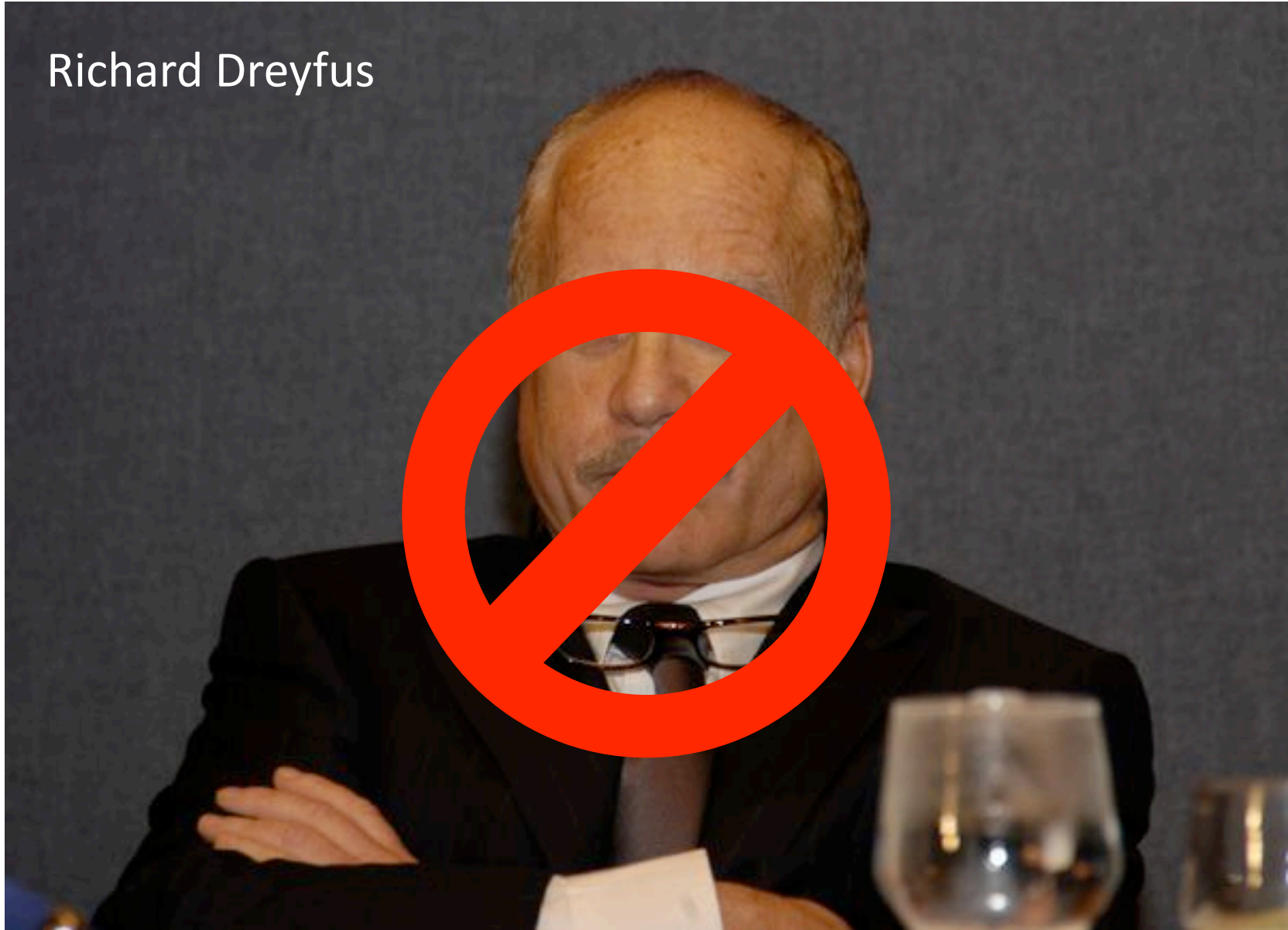
Dreyfus model of skills acquisition



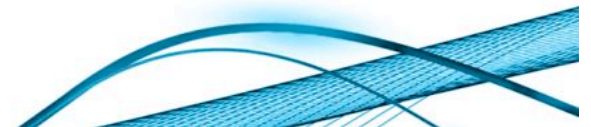
Dreyfus Affair

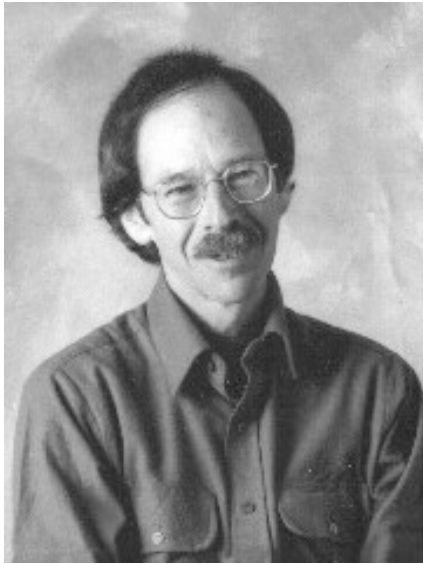


Richard Dreyfus



Julie Louis-Dreyfus

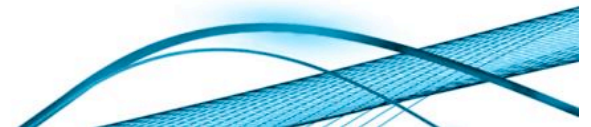


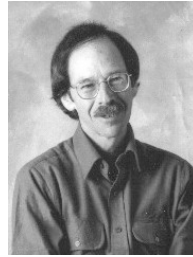


Stuart Dreyfus

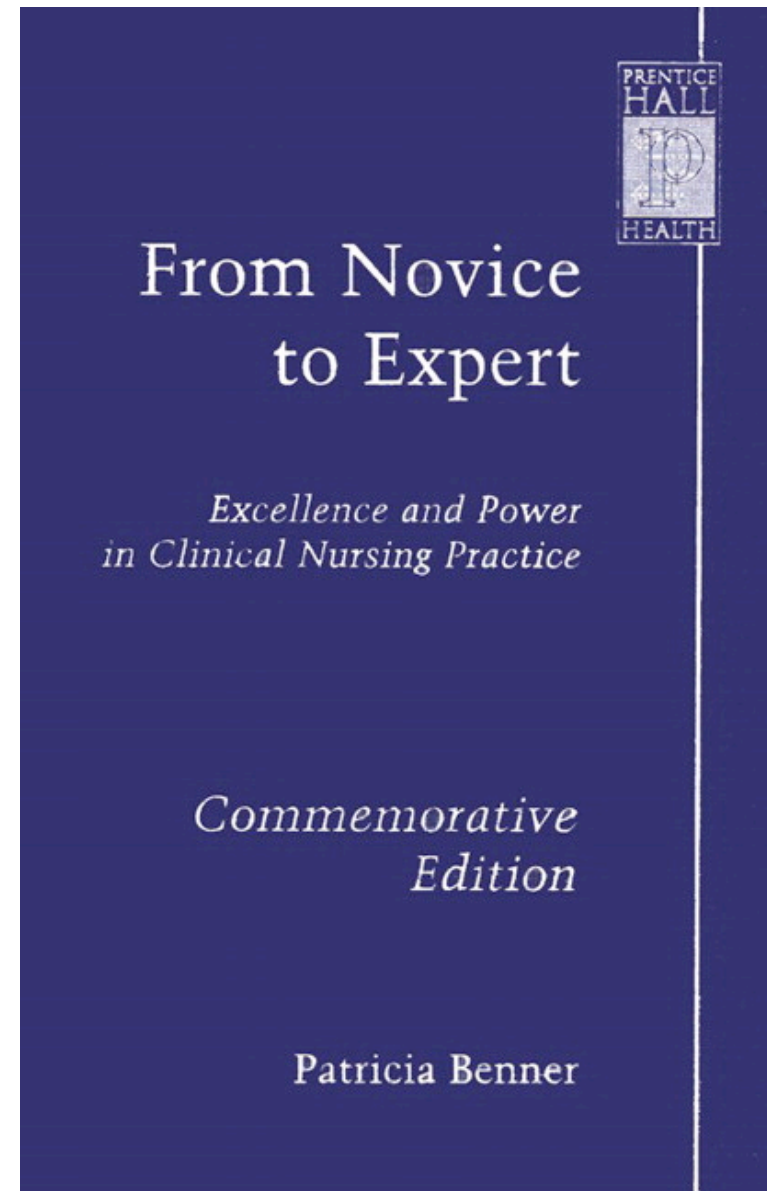
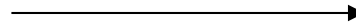


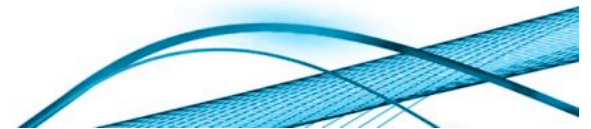
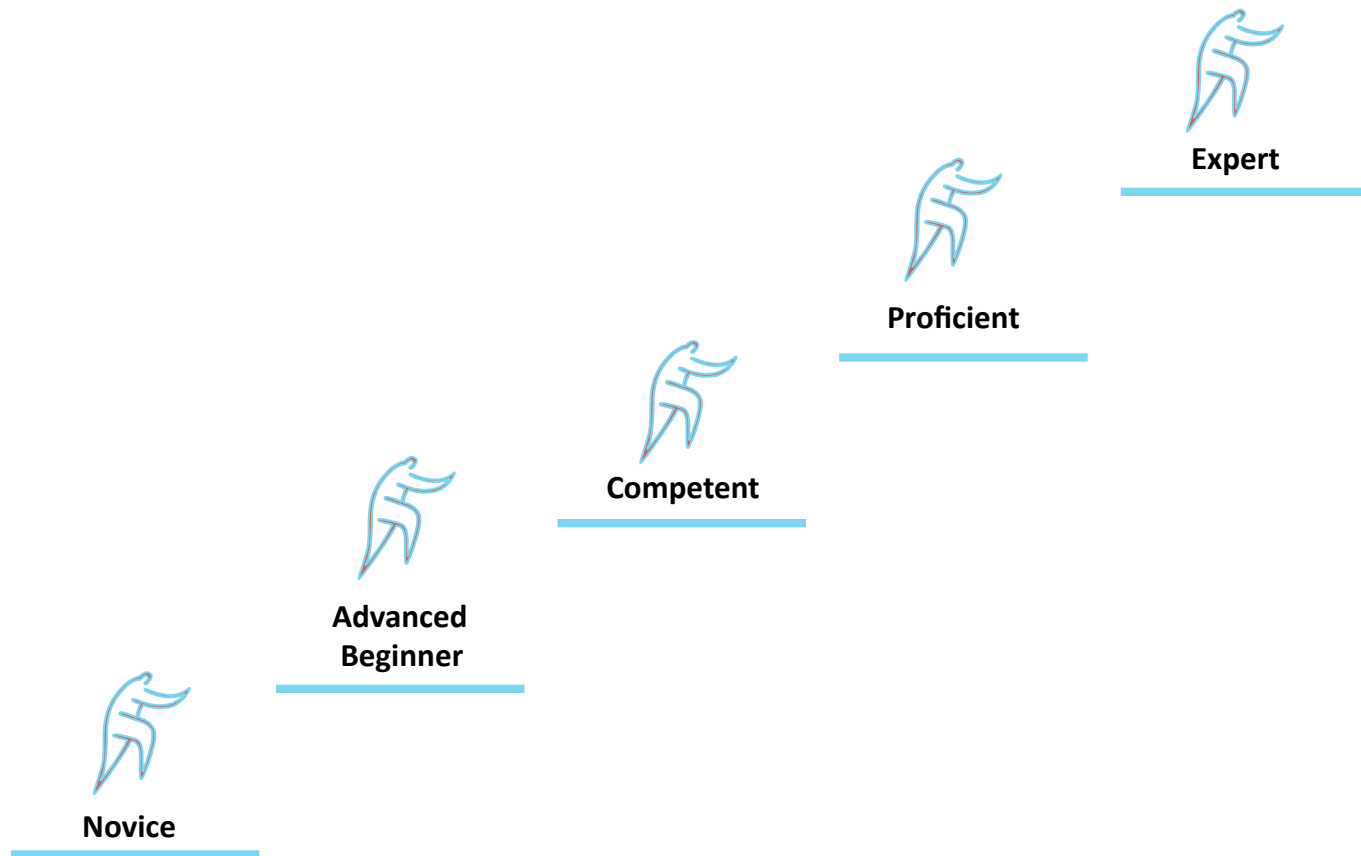
Stuart Dreyfus



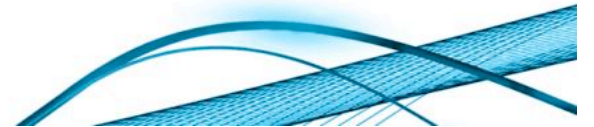


Paper: A Five-Stage Model of the
Mental Activities Involved in Directed
Skill Acquisition





Don't put a
Novice in control



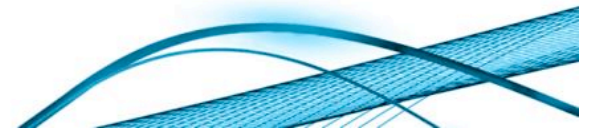


Remember this?

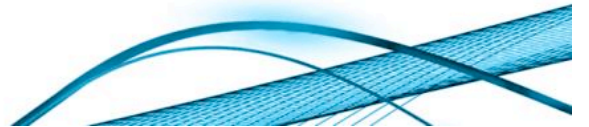
Development



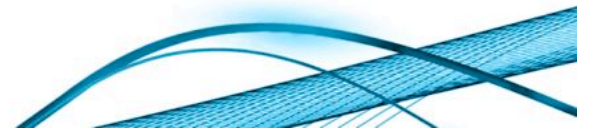
Leadership



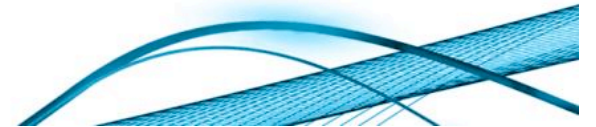
ing
Pair Programming



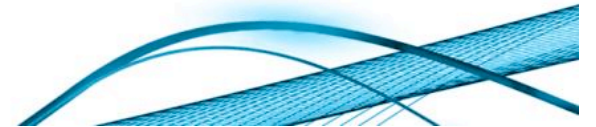
I:ls



Shadowing



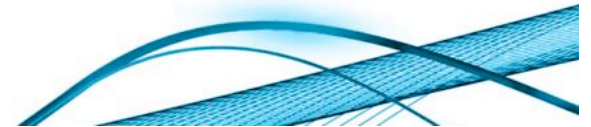
Safe environments



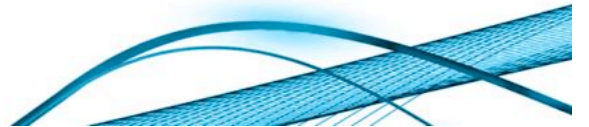
Step 1: Recognise the different skillset

Step 2: Develop competence

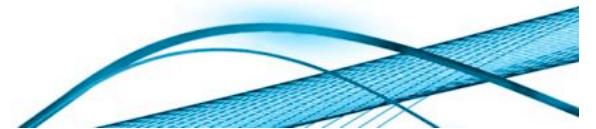
Step 4: Profit! (really)



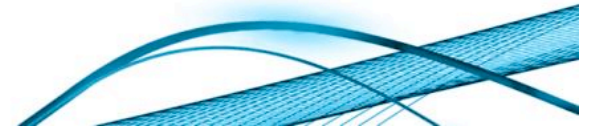
Learning as a team



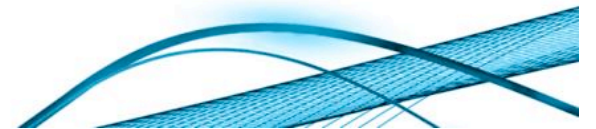
Celebrate success



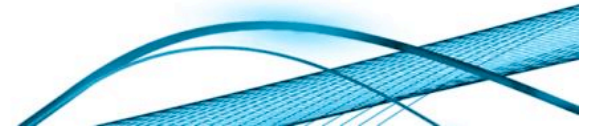
Opportunities to contribute



**Everyone is safe to fail
(lead by humility)**



Conflicts resolved openly

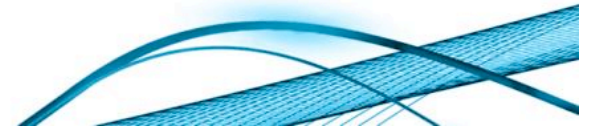


Introductions

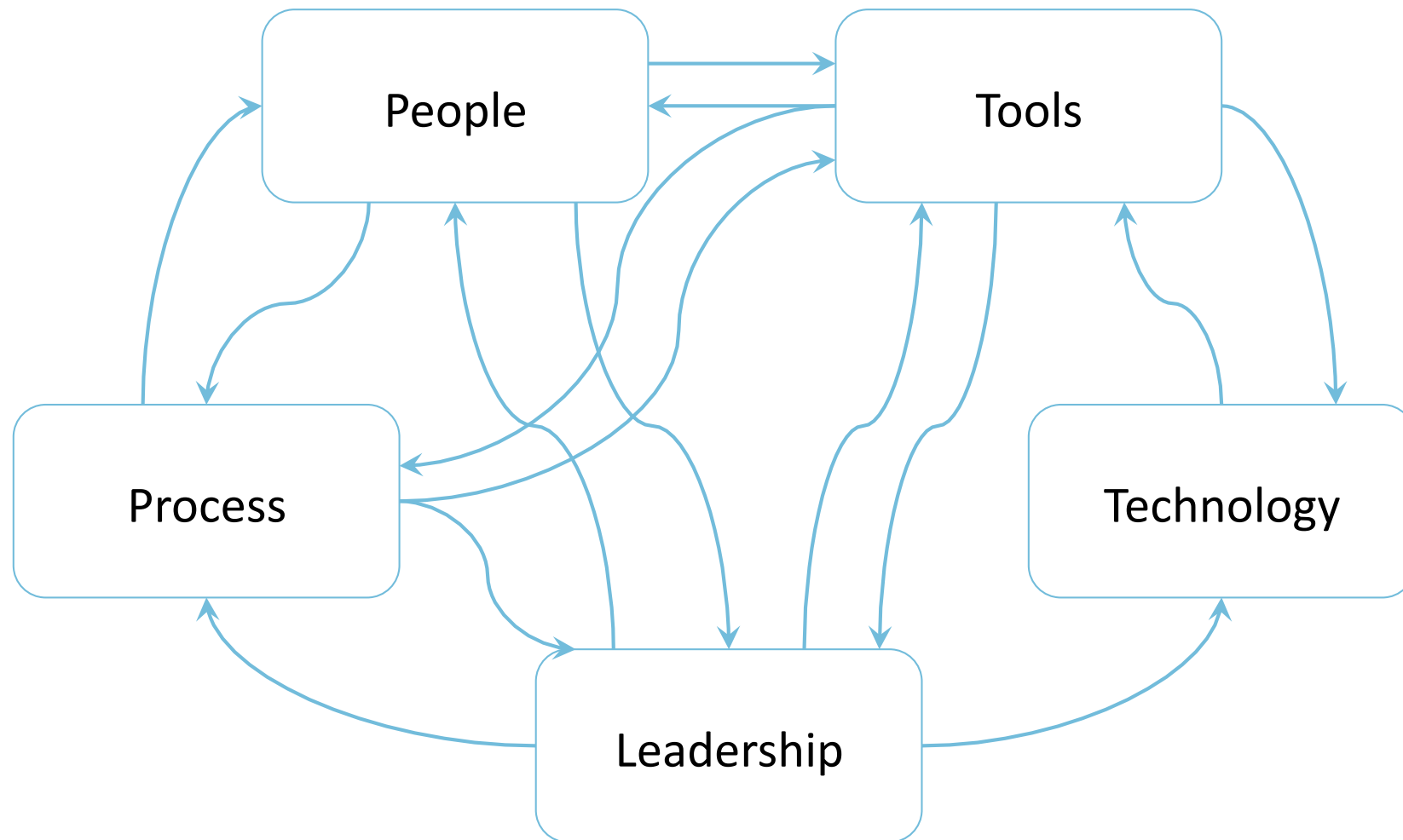
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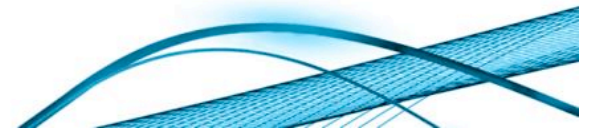
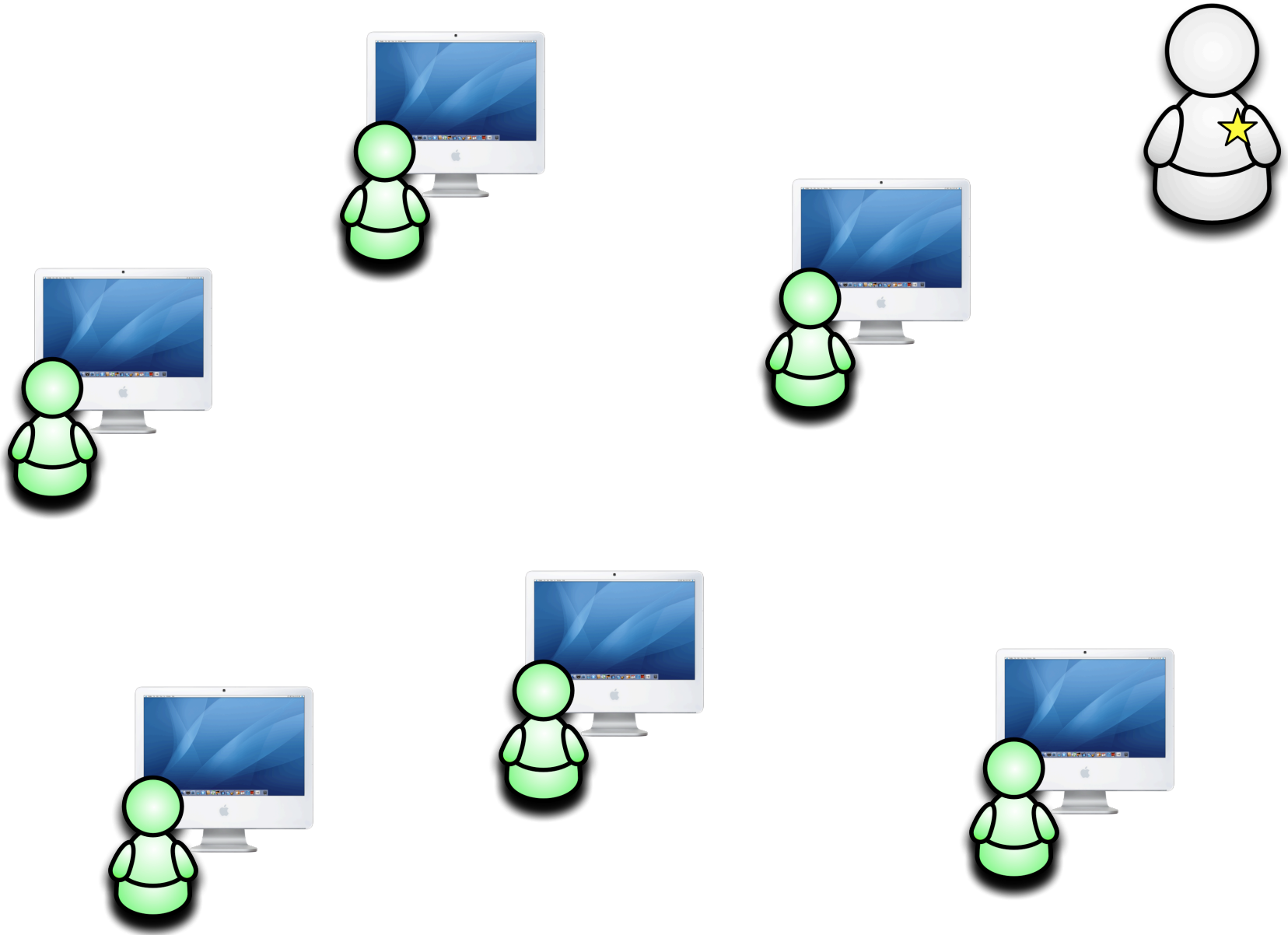
Our problem

What we can
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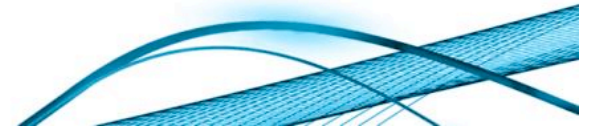


Software systems



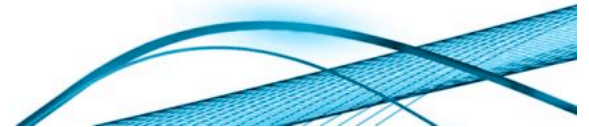


Closing notes...



*"...it is critical to acknowledge
the impact of individuals and
teams on end results"*

Source: QCon London recursive reference



Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.



Questions?

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