Watts S. Humphrey
(1927-2010)

Five lessons I learned from an inspiring leader
Daniel M. Roy
September 2011
My Watts connection

Project leader at SEI 1990-1995

Certified the French translation of CMM material in 1993

Took the first PSP class at CMU from Watts in the winter of 1994
From CMM to PSP

“My first class was a blessing in a way that I had not expected. Three people from the SEI were taking the course: Dan Roy, Julia Mullaney (then Julia Gale), and Jim Over. Subsequently, they all decided to work with me in transitioning the PSP intro general practice. They have been doing so ever since.”

Three process perspectives, WSH, 2001
My Watts connection

Project leader at SEI 1990-1995
Certified the French translation of CMM material in 1993
Took the first PSP class at CMU from Watts in the winter of 1994
STPP created in May 1995 on his advice
Invited Watts to Paris in October 1995
Became SEI transition partner in 1997
My other connections

Chart member of the SEI PSP/TSP project, first instructor of instructors in the US, Europe and Asia.

Authorized Personal Software Process (PSP®) Instructor – SEI PSP Transition Partner

Certified SEI PSP® developer

Trained Evaluator for the accreditation visits of the Computer Science Accreditation Board

Certified professional SCRUM master

Qualified User of the Myers-Briggs Type Indicator©

Co-Author of the book “Meeting Deadlines in Hard Real-Time Systems” (IEEE pub.)

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Watts bio-1

Born July 4, 1927, in Battle Creek, Michigan
Graduated valedictorian of his high school class in spite of early dyslexia
Served in the United States Navy in WWII
BS physics at the University of Chicago.
MS Physics from the Illinois Institute of Technology (IIT)
MBA degree from the University of Chicago
Honorary PhD Embry Riddle University
Watts bio-2

Director of programming at IBM
Vice-president of technical development at IBM
– 4,000 software professionals
– 15 laboratories in seven countries
Joined SEI in 1986 to create the process program
– Published “Managing the sw process” in 1986
– “Retired” from SEI in 1992 to develop PSP
– Published many PSP/TSP books from 1998 on

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PSP/TSP: The next wave

India has successfully used the CMMdi i j f id bl i f i d di i j f id bi l i f id id di i f id bi i f

In five years, I want the world to be asking, “How did India do it?”

The quality of a software system is governed by the process used to develop and evolve it.

Watts Humphrey, 1986

Competition is ramping up:

- China is growing at 40% per year and is cheaper
- Ex soviet union labor is plentiful and price competitive
- Latin America countries want their share

Every competing country must now demonstrate a consistent measurable quality advantage.

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High level recognition

Watts Humphrey being given the National medal of Technology
By U.S. president at the white House, September 2005
Lesson 1: Commitment

Watts’ “Outrageous commitment”
The heart of CMM level 2
“What if your life depended on software?”
Pressure on instructors for certification
Turning the tables on unreasonable pressure
Watts the workaholic
It’s the management stupid!
Lesson 2- “Discipline” is not a bad word

“A regimen to improve one’s skills”
The MBTI J’s and P’s are no excuse
Watts’ commitment to schedule
  – Ahead of schedule for DSE
  – The rendezvous anecdote
Watts’ impatience with sloppy work
  – first print of “Discipline for Sw Engineering”
  – airplane delay anecdote

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Lesson 3: Live at level 5

PSP: Level 5 for individuals
– PIPs are PDSA at its best
– Use your data for product quality and process improvement (9A anecdote)

TSP: Level 5 for small teams
– Self directed teams of PSP trained engineers
– Showing impressive business results

AIM: The future of level 5
Lesson 4: Let nothing stop you

CMM objections (afraid managers)
Rescheduling anecdote (authority)
PSP/TSP struggle
  – “Just teach the class” anecdote
  – “First TSP project and reorg” anecdote
“Close the deal but do not over-sell” lesson
The “better than plan” lesson (illness)
What makes such outstanding leaders?
What is leadership anyway?

“If your actions inspire others to dream more, learn more, do more and become more, you are a leader.”

John Quincy Adams (1767-1848)
Lesson 5: We can all continuously improve

The renaissance is over
An old debate

Plato - In the perfect society, rulers are wise, well born and benevolent. They know best and are trusted.

Aristotle - Perfection? Society should reach by itself for the best possible system but keep improving it.

Plato - The rulees, in turn, are good citizen, skilled and educated for their roles which they fully accept.

Aristotle – Rulers sacrifice their happiness for the sake of power, the people at large should be sovereign rather than the few best.

http://www.cyberessays.com/Politics/107.htm
http://www.mlahanas.de/Greeks/SchoolAthens.htm
Lesson 5: We can all continuously improve

The renaissance is over
LLNL and MBTI chat in the car, 1997
Watts could not have written P-CMM
Watts and technology
The need for impedance matching
Is Process all there is to it?

\[ Z_e > Z_p \]
Farewell to an inspiring leader

“In life, we all reach the same end, so we need to concentrate on the trip. Just as with a process, once you decide how you want to live, the rest will follow. Devote yourself to excellence, and you just might achieve it. That would be worth the trip.”

‘A discipline for software engineering’
Watts S. Humphrey (1927-2010)
Watts’ legacy