



THE AMERICAN UNIVERSITY IN CAIRO
DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING

A Glimpse of Computing Research at AUC

Sherif G. Aly

Associate Professor / Associate Chairman AUC

Senior Visiting Scientist / Technology Innovation Center



 THE AMERICAN UNIVERSITY IN CAIRO
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Serious about a career in computing?

Get a degree from CSE@AUC

I did!
“Currently pursuing my PhD degree in Computer Science, specializing in making computers see (Computer Vision) and Computer Graphics.”

Tarek El-Gaaly
PHD Candidate
Rutgers University





It promotes the development of perceptual and analytical skills among students.



New Cairo is a spacious, technologically advanced and environmentally friendly campus.



It serves as a local and global catalyst for change.



Our labs are designed to strike a balance between theoretical knowledge and laboratory experience.

MOPEC

THE MOBILE AND PERVASIVE COMPUTING
RESEARCH GROUP

The Mobile and Pervasive Computing Research Group

HOME

Researchers



Dr. Sherif G. Aly
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CMU - Qatar



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Maged Elazaar, Ph.D. ABD
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Mostafa Hamza
M.Sc. Candidate



Mohamed Fotouh
M.Sc. Candidate



Ahmed Sabry
M.Sc. Candidate



Amr Al Jarhi
MComp



Hend Arafa
MComp



MOPEC

Truly Innovating ...

Have a new trailblazing idea? **CONTACT**



THE MOST PROFOUND TECHNOLOGIES
ARE THOSE THAT DISAPPEAR

Mark Weiser, Father of Pervasive Computing

**EMERGENCY
NO PARKING**

TREE WORK ← 30 ft. → 202-691-5133

EACH DIRECTION FROM THIS SIGN

ON:
MAR 4th 2010

FROM 7:30 a.m. - 5:00 p.m.

BY ORDER OF THE DISTRICT OF COLUMBIA

**YOU WILL BE TOWED
AT YOUR EXPENSE**

POSTED ON: 2-24-2010 DCMA-2008-
CNR B-0050

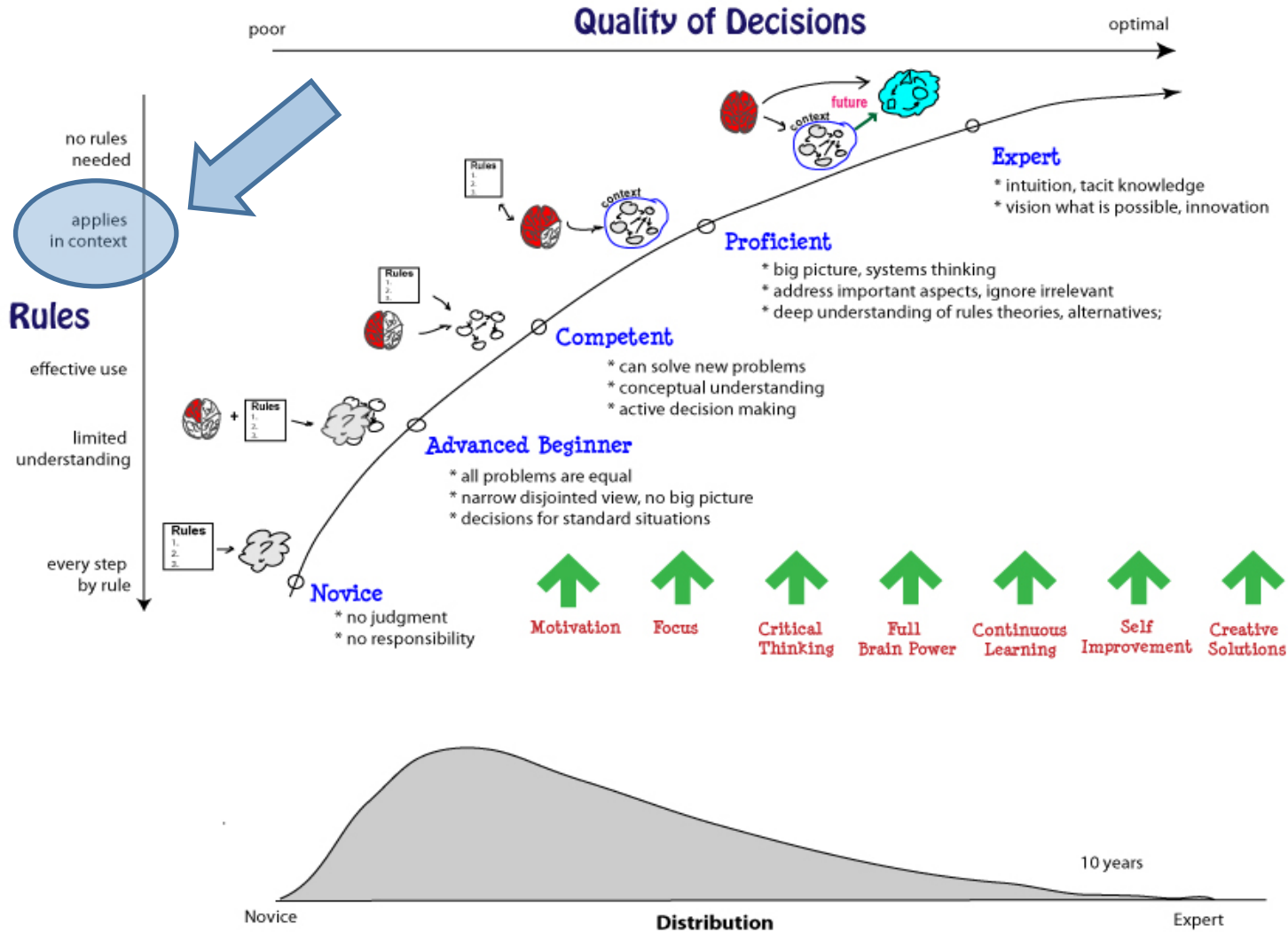
THE MOST PROFOUND TECHNOLOGIES ARE THOSE THAT DISAPPEAR

Mark Weiser

- *They weave themselves into the fabric of everyday life until they are indistinguishable from it.*
- *The state of the art is perhaps analogous to the period when scribes had to know as much about making ink or baking clay as they did about writing.*



Genesis of The Expert



A tag cloud of search results for the word "Context". The words are arranged in three rows. The first row contains "awareness", "circumstances", "environment", "event", and "idea". The second row contains "information", "location", "meaning", "particular", "passage", "process", "science", "setting", and "situation". The third row contains "something", "term", "user", and "words". The words "awareness", "location", "meaning", and "user" are the largest and most prominent.

*Tag cloud of top ten search results from Google relevant to the word
"Context" with occurrence over five times*

CONTEXT ...

“That which surrounds, and gives meaning to, something else”

“Any information that can be used to characterize the situation of an entity (person place or object), and can be relevant to an application”

Location

Intention

Time

Emotions

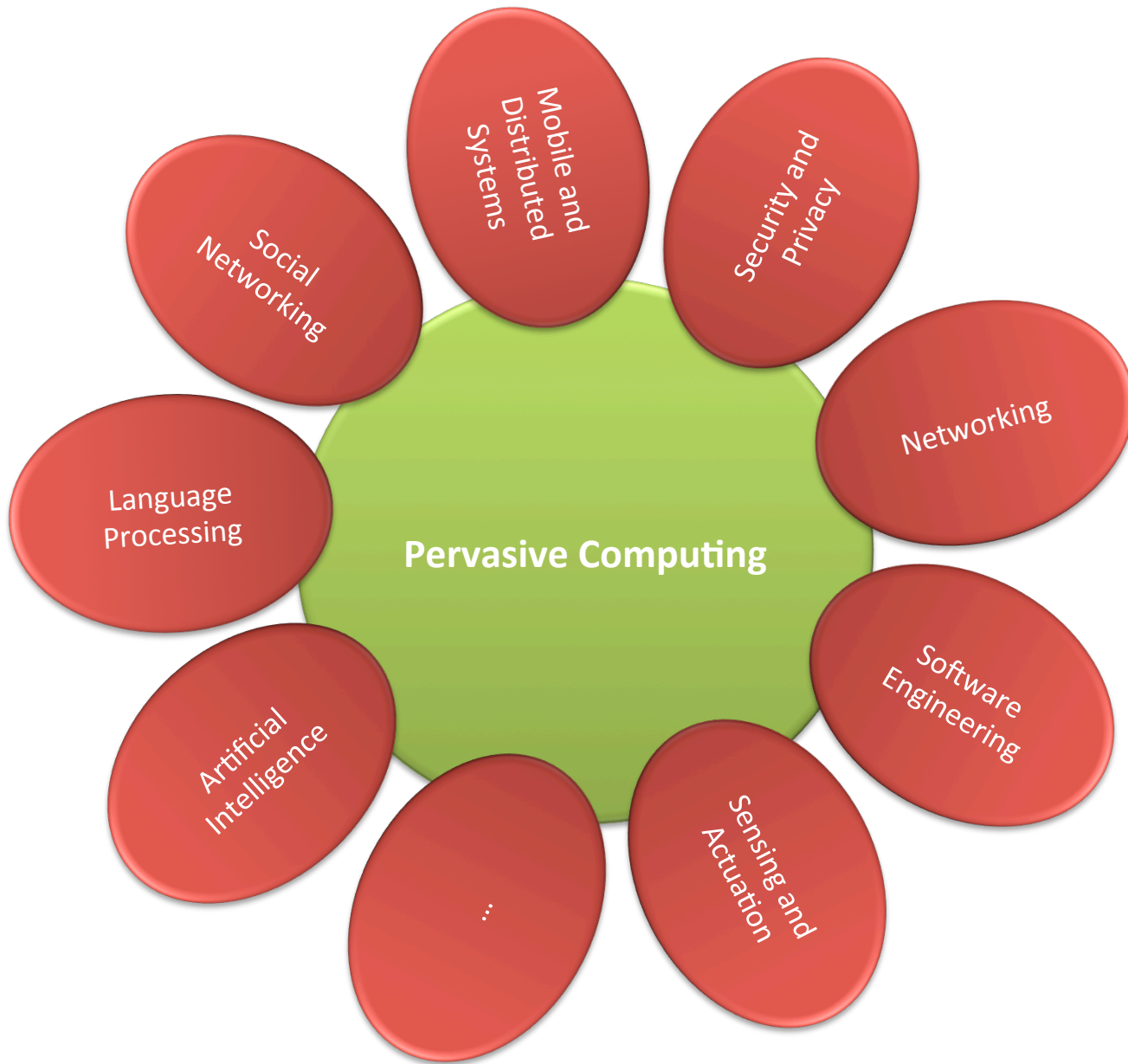
Execution
state of
applications

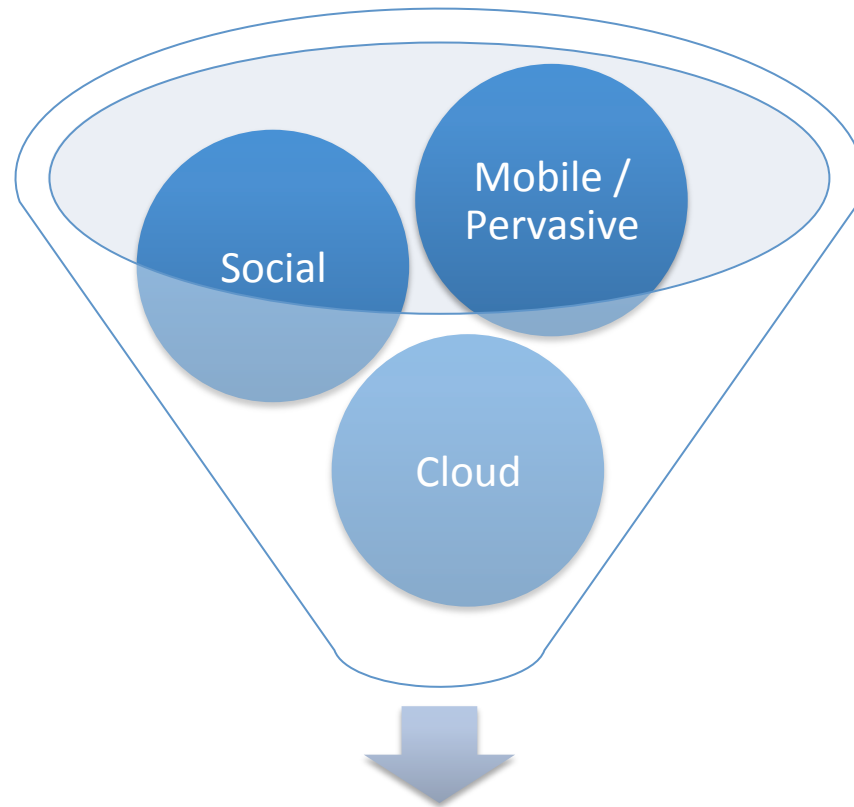
Bandwidth

Computational
resources

Environmental
Conditions

Calendar





New Hybrid and Innovative
Systems?



Our Research

- Mobile Contextual Searching (Partially funded by Google's Research Awards Program).
 - Understanding mobile context that influences searching.
 - Gathering mobile user context.
 - Influencing mobile based web searching.
- Social Pervasive Systems (In Collaboration with HARRAS from CMU-Qatar).
- Context elicitation from social networking.
 - Mood extraction (happy, sad, anxious, angry).
 - Could be subsequently used to influence mobile applications.

Our Research

- Context Inference for Situational Identification.
- Automated Design Generation for Pervasive Systems (Collaborator from IBM Canada).
- Context Aware Business Processes.
- Context Aware Video Streaming.
- Summarization of social networking content for delivery to mobile devices (previous work funded by Cairo Microsoft Innovation Center).

- Collaborations with



*technology innovation and
entrepreneurship center*



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DISCUSSION QUESTIONS ...

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