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

AUC | SCHOOL OF SCIENCES AND ENGINEERING

Accredited ABET Computing Accreditation Commission

Accredited ABET Engineering Accreditation Commission

rt program encourages the development of perceptual and analytical skills among students

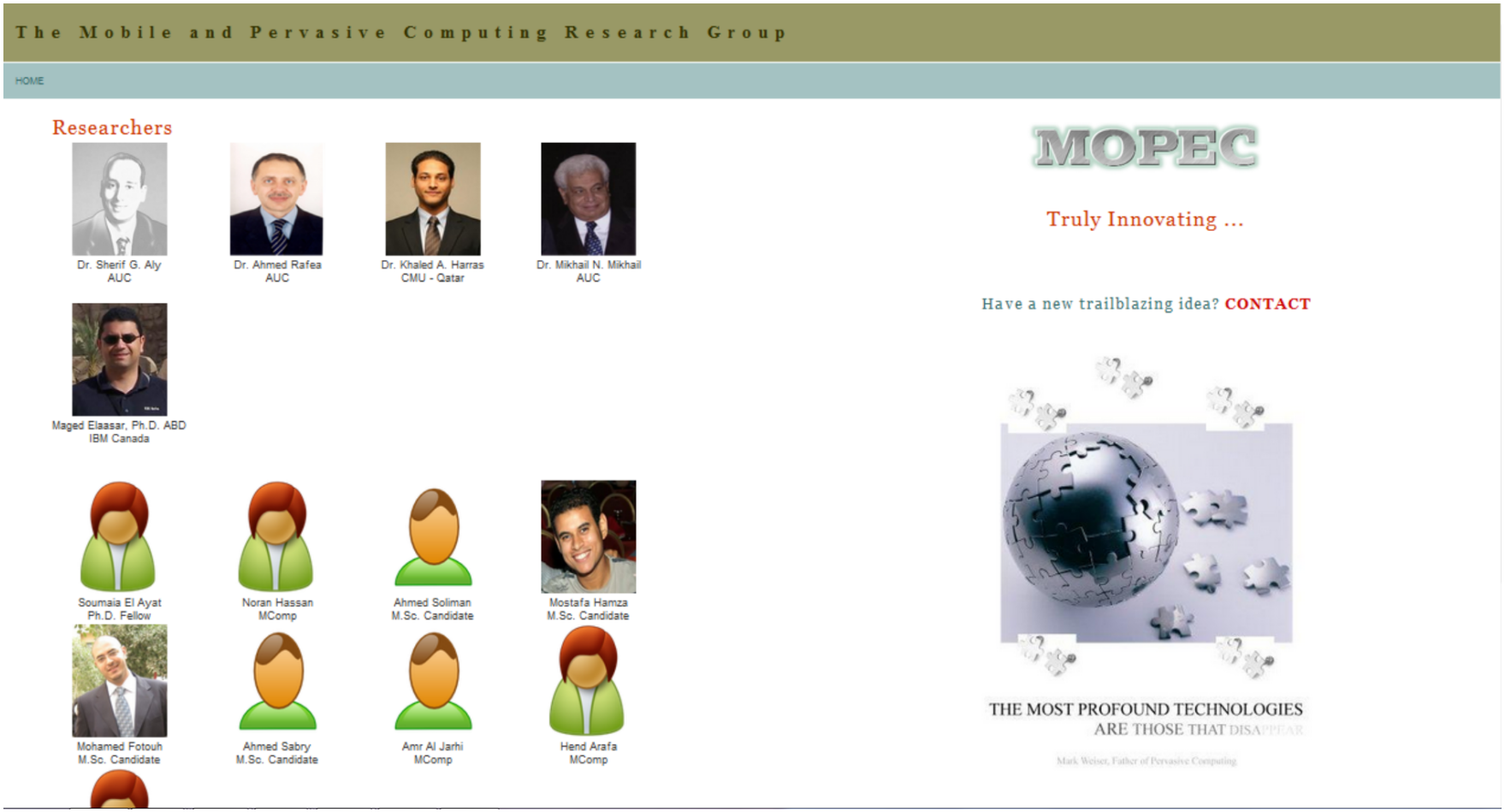
New Cairo is a spacious, technologically advanced and environmentally friendly campus

serves as a local and global catalyst for change

cula are designed to strike a balance between theoretical knowledge and laboratory experience

MOPEC

THE MOBILE AND PERVASIVE COMPUTING RESEARCH GROUP



www.cse.aucegypt.edu/~sgamal

EMERGENCY
NO PARKING
TREE WORK
30 ft.
202-671-5133
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
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POSTED ON: 2-24-2010
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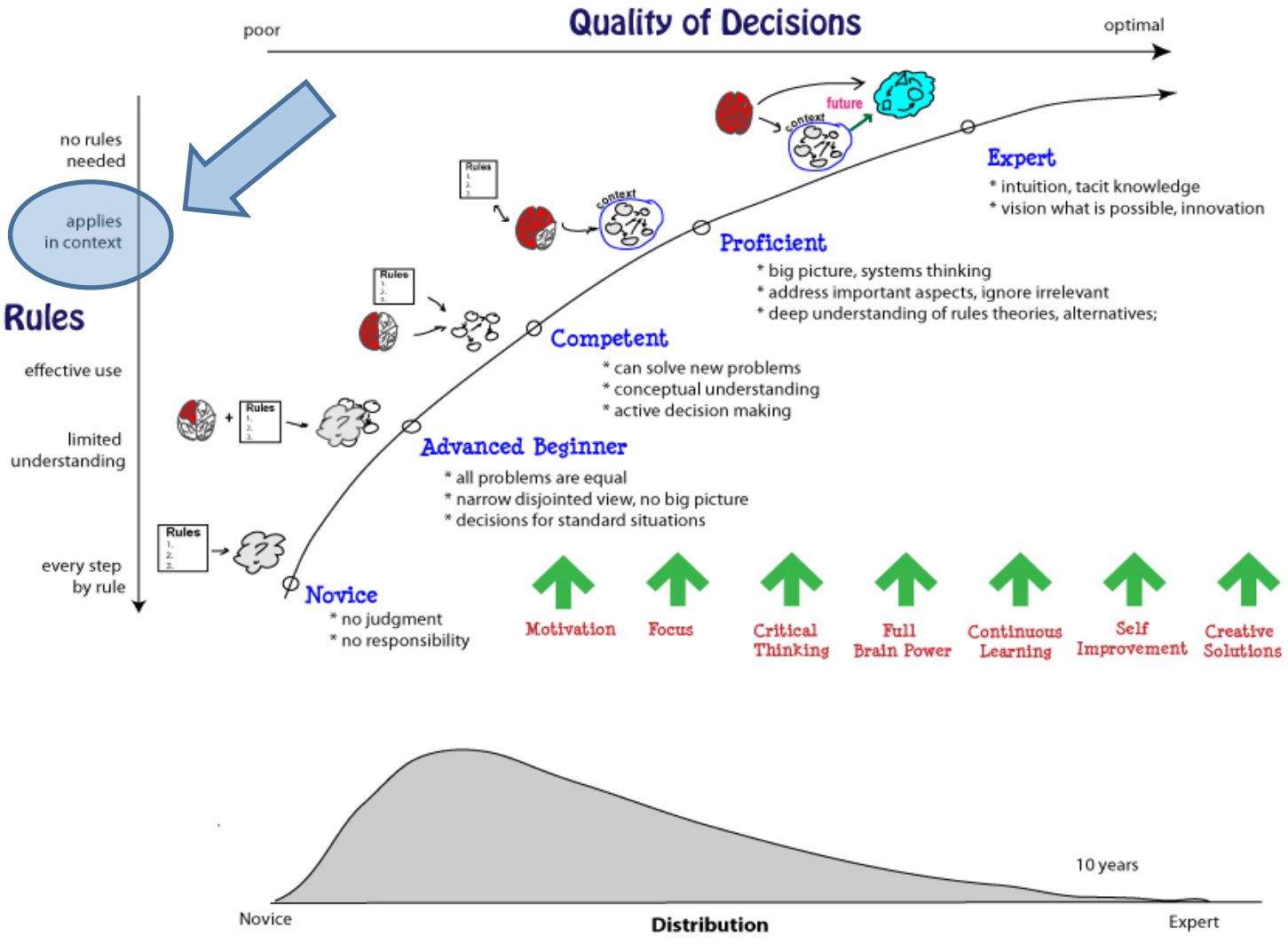
THE MOST PROFOUND TECHNOLOGIES ARE THOSE THAT DISAPPEAR

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



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

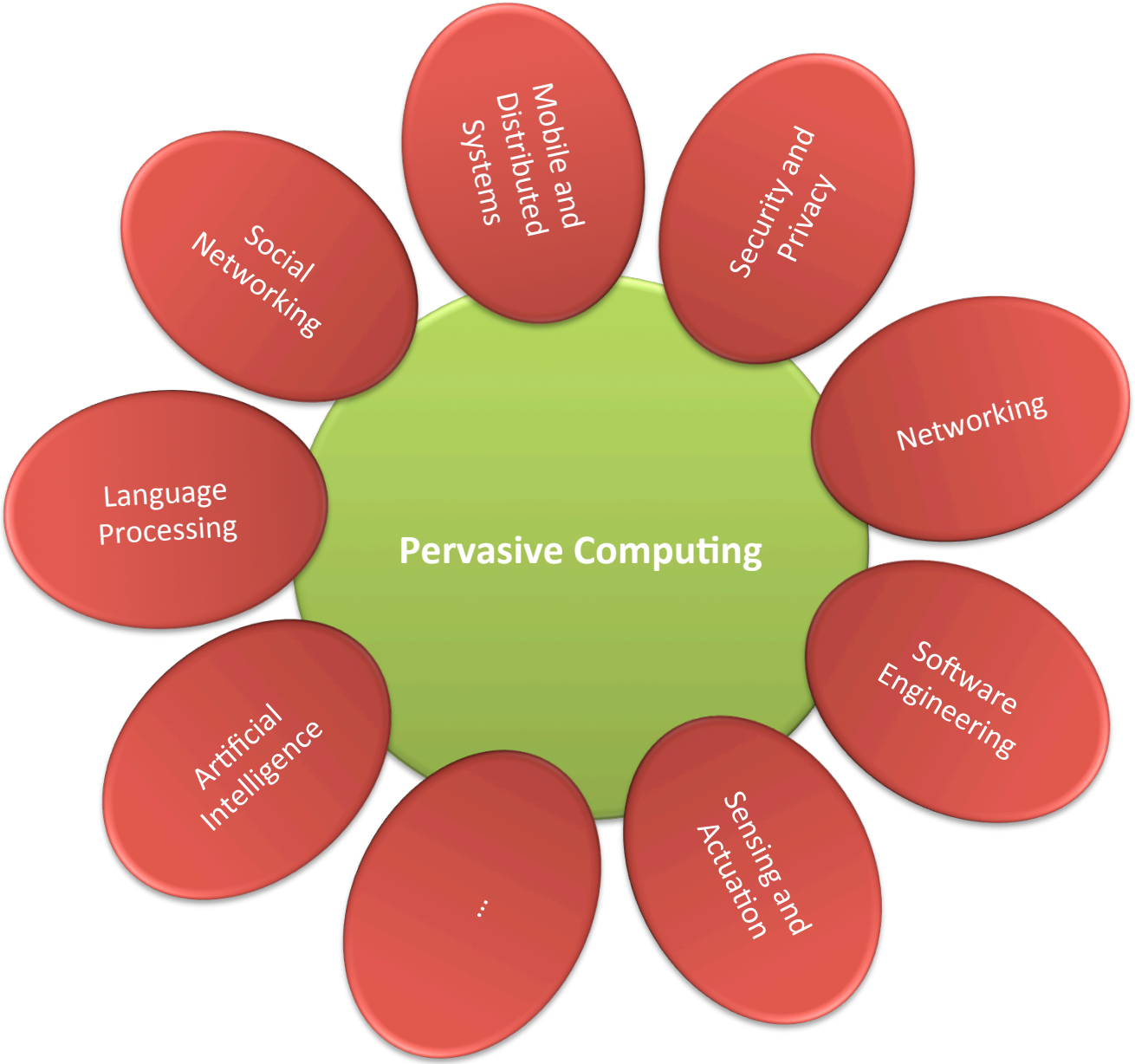
Bandwidth

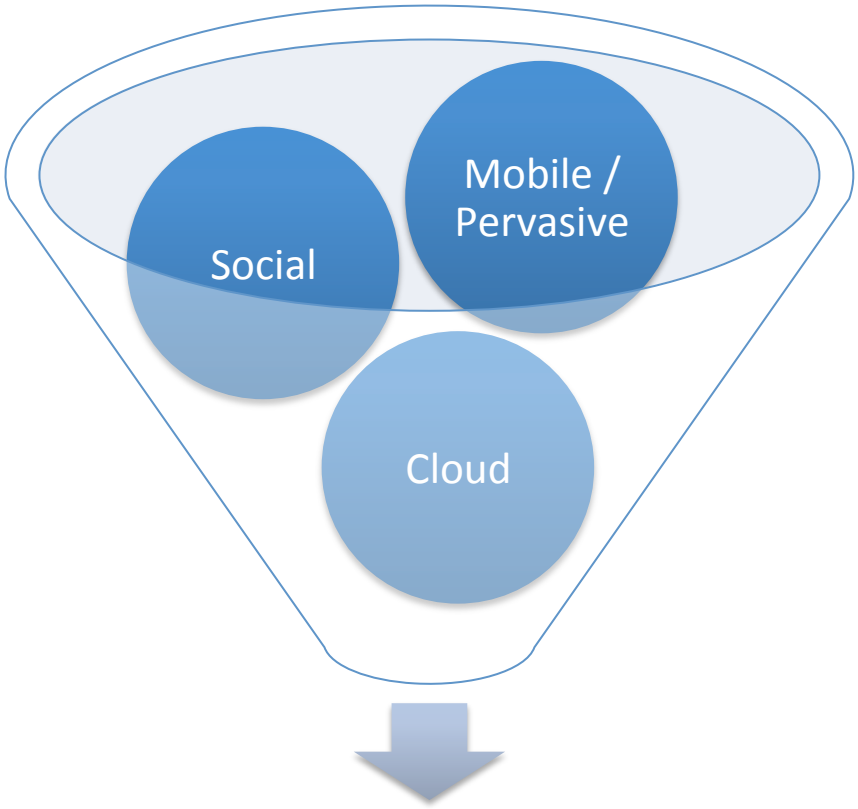
Execution state of applications

Computational resources

Environmental Conditions

Calendar


Pervasive Computing
Mobile and Distributed Systems
Security and Privacy
Networking
Software Engineering
Sensing and Actuation
...
Artificial Intelligence
Language Processing
Social Networking



New Hybrid and Innovative Systems?

38
15
24
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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

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DISCUSSION QUESTIONS …

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