

Welcome to

Microsoft Research Cambridge

Alex Butler

Sensors & Devices Group

21st November

Cambridge Wireless UX SIG

“No Free Lunch: The Consumer as Product in a Data-Driven Economy”



Microsoft Research Presence

Mission

- **Advance** the state of the art in Computer Science
- **Transfer** technology to Microsoft business
- **Lead** Microsoft into the future

Microsoft Research Cambridge



The Numbers

STAFF

121 RESEARCHERS

100 INTERNS PER YEAR

17 R&D STAFF FROM OTHER
MICROSOFT R&D GROUPS

11 VISITING RESEARCHERS PER YEAR

OVER 150 DAY VISITORS,
SEMINAR SPEAKERS PER YEAR

HONOURS

1 KNIGHTHOOD

1 TURING AWARD WINNER

1 KYOTO PRIZE WINNER

2 MARR PRIZE WINNERS

2 ACM FELLOWS

1 IEEE FELLOW

3 ROYAL SOCIETY FELLOWS

1 ROYAL SOCIETY OF EDINBURGH FELLOW

4 ROYAL ACADEMY OF ENGINEERING FELLOWS

1 MACROBERT AWARD

1 ROOKE MEDAL

1 VON NEUMANN MEDAL

1 EADS GRAND PRIZE

OUTPUTS

HUNDREDS OF TIER
PUBLICATIONS PER YEAR
45+ PATENTS FILED PER YEAR

Research Areas

Machine Learning & Perception

Computer Vision. Machine Learning. Online Services & Advertising. Constraint Reasoning.

Programming Principles & Tools

Formal Methods. Programme Structures. Programming Systems. Constructive Security.

Systems & Networking

Distributed Systems. Networking. Networks, Economics & Algorithms. Operating Systems.

Computer-Mediated Living

Integrated Systems. Sensors & Devices. Socio-Digital Systems. i3D.

Computational Science

Biological Computation. Computational Ecology & Environmental Sciences.

Research Connections



Intellectual Capital Development

- PhD Scholarships
- PhD Summer School
- Support for Academics and Professional Conferences
- Microsoft Awards



Joint Institutes



INRIA, France
Software Security
Interaction
www.inria.fr



University of Trento, Italy
Computational Tools for Systems
Biology
www.cosbi.eu



**Barcelona Super Computing
Centre, Spain**
Multi Core Systems Architectures
and Programming
Language Runtimes
www.bscmsrc.eu

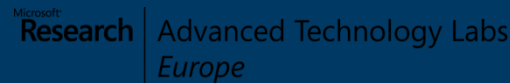
Advanced Technology Labs Europe

Dedicated to collaborative applied research and technology development.

Contributes to the public research programs of the European Commission and the German Government.

Main Research Areas:

- High Value Embedded Systems
- Cloud Computing
- Software Productivity Tools

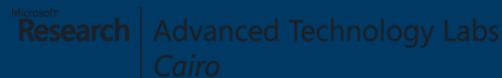


Advanced Technology Labs Cairo

Focus on applied research and development initiatives in the Middle East and Africa.

Main Research Areas:

- Information Retrieval and Digital Content Services
- Mobile and Multimedia Services and Arabic Language Services



Advanced Technology Labs Israel

Main Research Areas:

- Telecoms
- Online Services
- Entertainment



Technology Transfer

The Benefits:

- Transfer of ideas into Microsoft products - e.g. F# shipping in Visual Studio 2012
- Licensing of intellectual property to 3rd parties - e.g. SenseCam now available commercially from Vicon
- Planning advice and consultancy to product groups - e.g. Social-science guidance for family media sharing scenarios in Windows 8

Recent Transfers



1.



2.



3.



4.



5.



6.

1. **Kinect for Xbox 360**
Body Part Recognition
2. **Visual Studio 2012**
F#
3. **AutoCollage**
4. **Bing**
AdPredictor
5. **Xbox 360 & Halo 3**
TrueSkill
6. **Office 2010**
Background Removal

Resources

- Microsoft Research
www.research.microsoft.com
- Towards 2020 Science
www.research.microsoft.com/towards2020science
- Being Human: Human Computer Interaction in the Year 2020
www.research.microsoft.com/hci2020
- Publications
www.research.microsoft.com/research/pubs
- Downloads
www.research.microsoft.com/research/downloads

www.research.microsoft.com

©2012 Microsoft Corporation. All rights reserved.

This material is provided for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY. Microsoft is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

