

Promoting Older Adult-Computer Interaction: Age-Appropriate Design and Training



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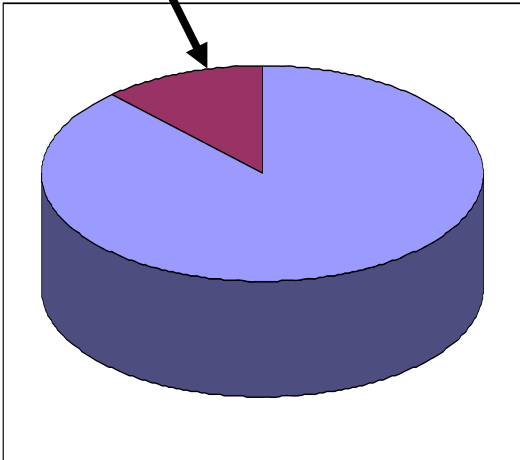
Why Older Adults?

- The older population is a rapidly growing yet technologically underserved social group
- An ideal target audience for developers of user-friendly IT products and services
- Can lead to consideration of the needs of other technologically underserved users



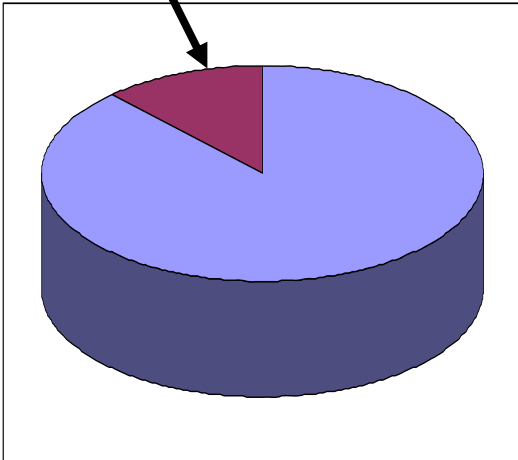
The Aging Trend: The American Population is Aging

**In 2000: Age
65+ (12%)**

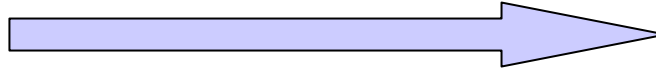


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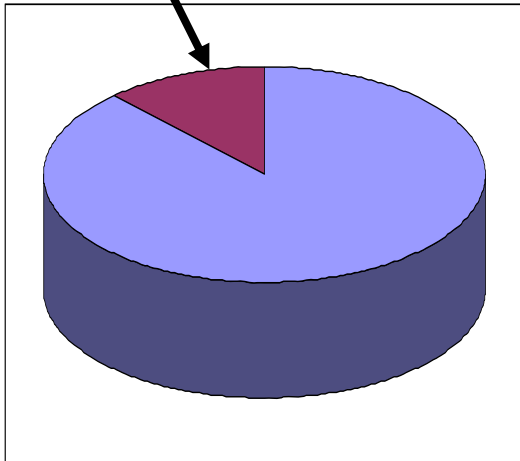


**In 2011, the baby
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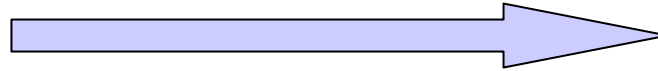


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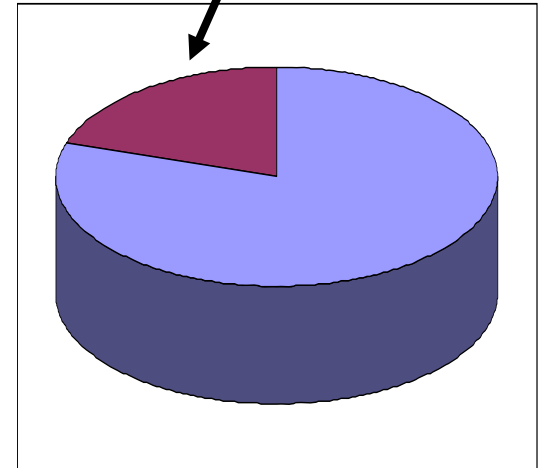
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**By 2030: Age
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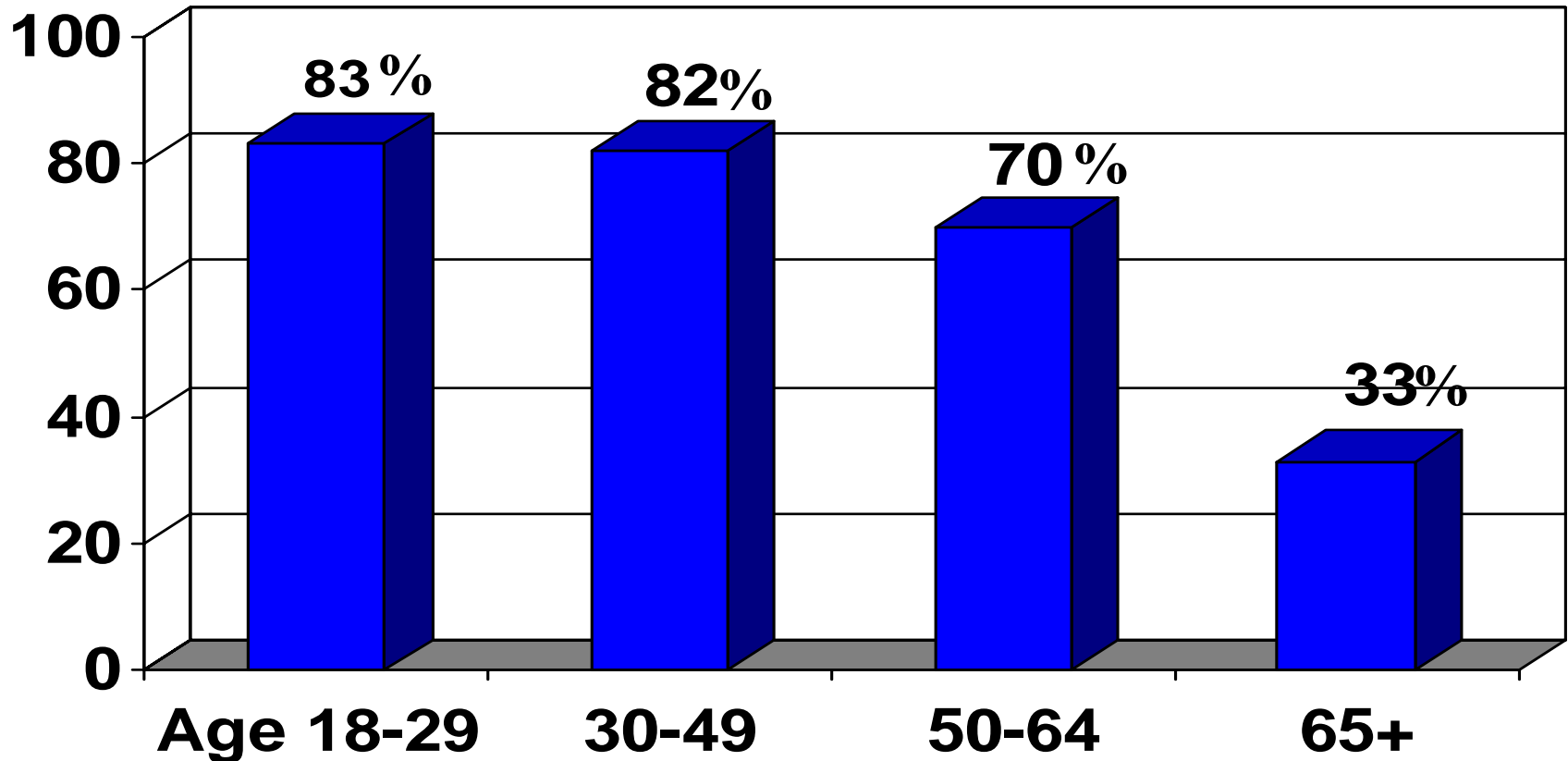


Source: <http://www.census.gov/>

When the aging trend meets the IT trend...

- Most age groups have experienced significant growth in Internet usage
- Still, Internet use among different age groups is far from even

■ Percentage of each age group who "use the internet" and "send or receive email"



Pew Internet & American Life Project:

Demographics of Internet Users

http://www.pewinternet.org/trends/User_Demo_4.26.07.htm



Generational Differences in Online Activities

	Online Teens ^a	Gen Y	Gen X	Trailing Boomers	Leading Boomers	Matures	After Work	All Online Adults ^b
	(12-17)	(18-28)	(29-40)	(41-50)	(51-59)	(60-69)	(70+)	
Go online	87%	84%	87%	79%	75%	54%	21%	72%

Teens and Gen Y are more likely to engage in the following activities compared with older users:

Online games	81	54	37	29	25	25	32	36
School research	*	73	60	61	48	33	14	57
Instant message	75	66	52	38	42	33	25	47
Text message	*	60	44	29	15	11	8	35
Get info about a school	57	59	42	50	40	30	14	45
Download music	51	45	28	16	14	8	5	25
Read blogs	38	41	30	20	21	19	16	27
Download video	31	27	22	14	8	8	1	18
Create a blog	19	20	9	3	9	3	4	9



Pew Internet & American Life Project: Generations Online (12/2005)
http://www.pewinternet.org/pdfs/PIP_Generations_Memo.pdf

Barriers to Older Adults' Use of IT

- Age-related changes in cognitive, perceptual, and physical abilities
- Lack of age-appropriate training and technical support
- Lack of access especially among low-income older adults

Interventions

- Technological: senior-friendly interfaces and systems
- Educational: training materials and procedures for older adults

Technological Interventions

- The National Institute on Aging/National Library of Medicine guidelines for designing senior-friendly Web sites
- Three key aspects:
 - 1) readable text;
 - 2) info. presentation;
 - 3) navigation



Making Your Web Site Senior Friendly: A Checklist
<http://www.nlm.nih.gov/pubs/checklist.pdf>

Educational Interventions

- Much less attention has been paid to training
- Potential facilitating factors:
 - e.g., instructor- instead of computer-based;
 - small group setting
 - a friendly and supportive environment

Limitations of Current Computer Training Programs for Older Adults

- Only last for a limited period of time
- Only focus on the end result of IT learning
- Ignore that the *process* of IT learning matters as well

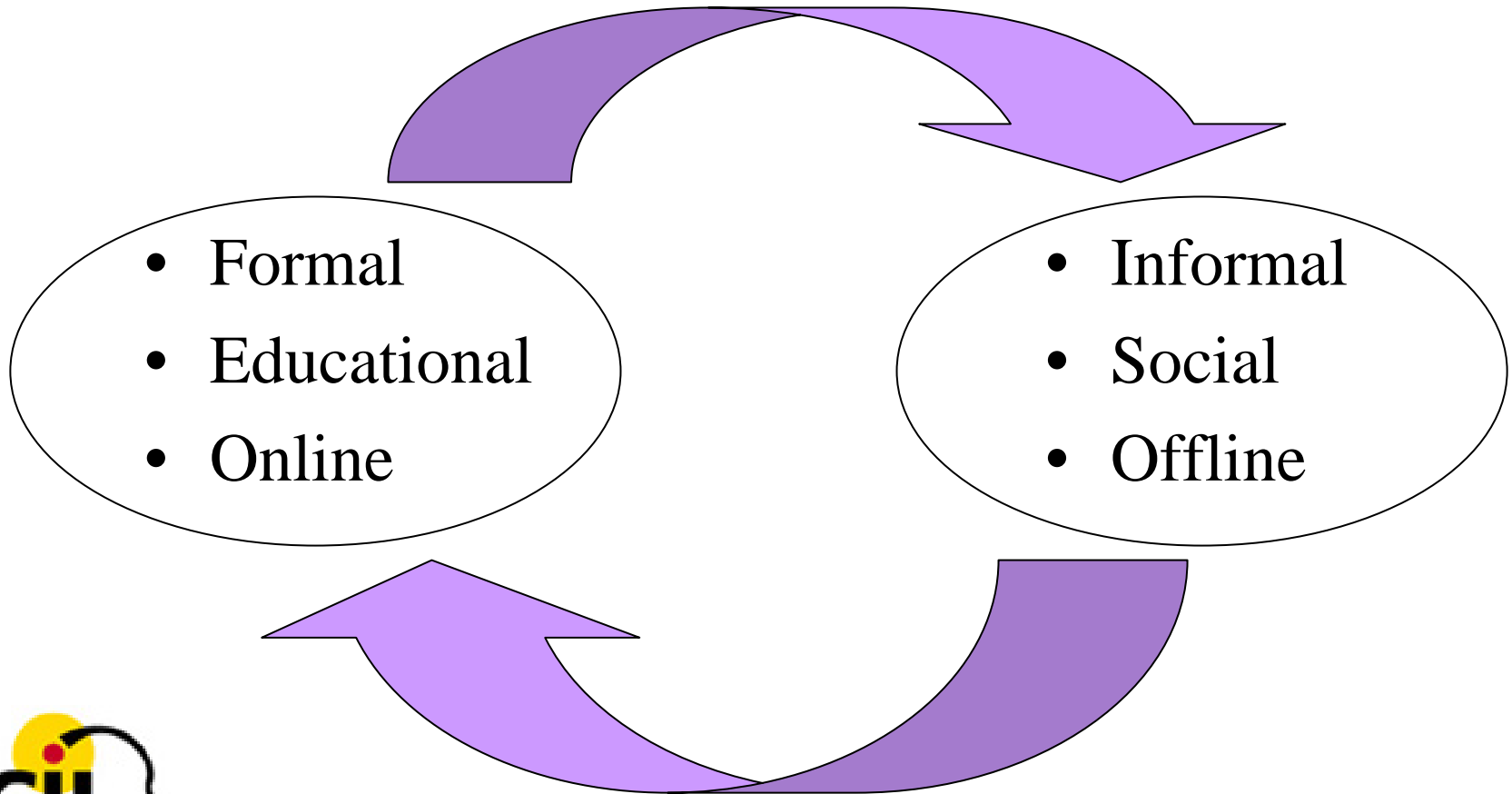


Older Adult Computer Learning: Offline & Social

- The physical setting
- Social interactions, friendship, & social support



A Balanced Approach to Older Adult Computer Training/Learning



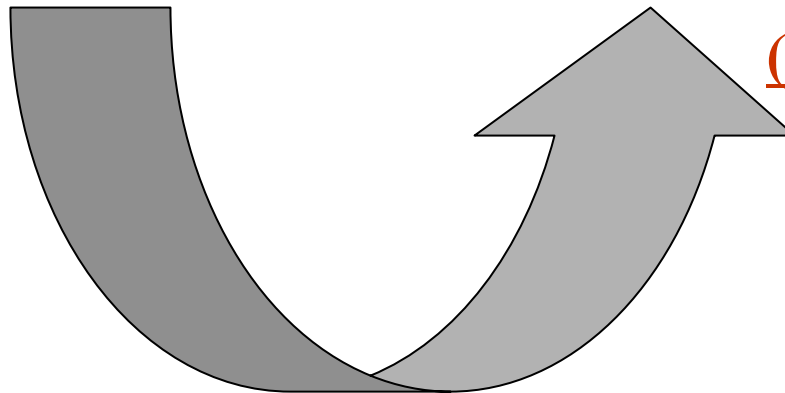
A balanced approach to older adult computer training

- The direct goal:
to improve the
efficiency of
training

(A Means)

- The indirect goal:
to improve
quality of life

(An End)



Research-in-Progress

- A three-stage research project to promote older adult-computer interaction
- Focus on e-health literacy
- Partner with public libraries
- Reach low-income older adults



Stage 1: Summer 2007

- Interview older adults about their:
- Health information needs and sources
- Use (or non-use) of IT for health info.
- Barriers to use of IT for quality health info.
- Potential interventions that may help overcome those barriers



Stage 2: Fall 07-Spring 08

- Develop and provide training materials & procedures
- Focus on online health information
- Build on resources developed by the NIH



Stage 3

- Develop a practical and sustainable model for public libraries to promote e-health literacy
- Older adults as peer instructors
- Promote lifelong learning, volunteering, civic engagement, and empowerment



Health Informatics in An Aging Population Workshop

- **When: 9:00 am – 5:00 pm, June 1, 2007**
- **Where: Computer Science Instructional Center (CSIC), Room 2118**
- **<http://www.cs.umd.edu/hcil/soh/OlderAdults-SCHEDULE.pdf>**



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Thank you! Questions?

