

# The Future of Communications in Next Generation Networks

Workshop on Convergence  
15-16 January 2007

Geneva

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University of Colorado & CITI Columbia University  
Temple University & CITI, Columbia University

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## Agenda

- Overview
- Future Demand & Market
- Policy Framework
- Conclusion/Future Research

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## Overview

- Convergence
- Consumer Focus
- Demand & Supply Sides

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## Future Demand & Market

- Derived Demand
- Expenditure Share
- Music Downloads
- Demand/Substitution
- VoIP/ Mobile Telephony
- Competition
- Elasticities & Regulation

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## Future Demand & Market

- Derived Demand

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## Future Demand & Market

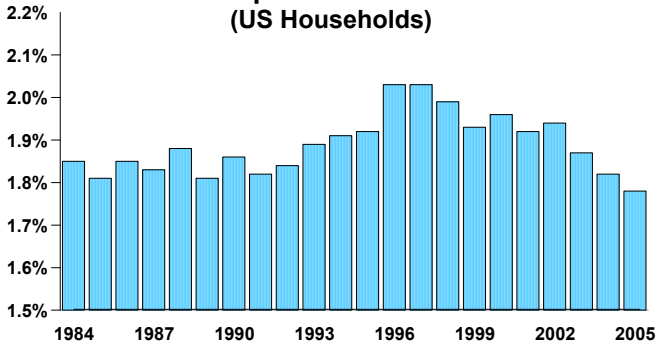
- Derived Demand
- Expenditure Share

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## Expenditure Share

Share of Expenditure for Telecoms  
(US Households)

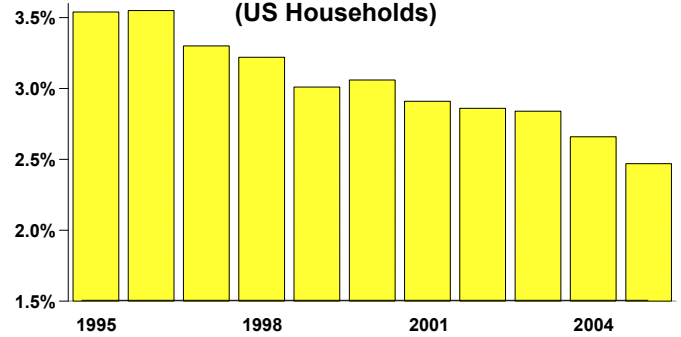


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## Expenditure Share

Share of Expenditure: Local, LD, & Wireless  
(US Households)

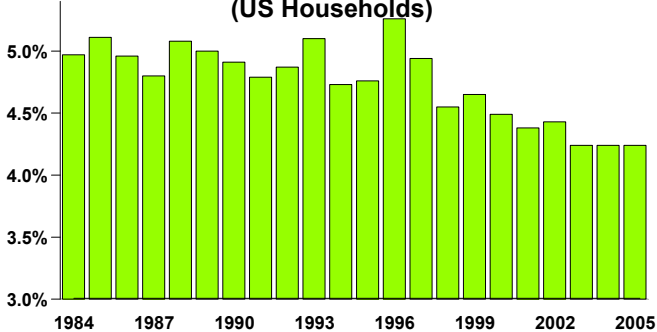


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## Expenditure Share

Share of Expenditure for Entertainment  
(US Households)

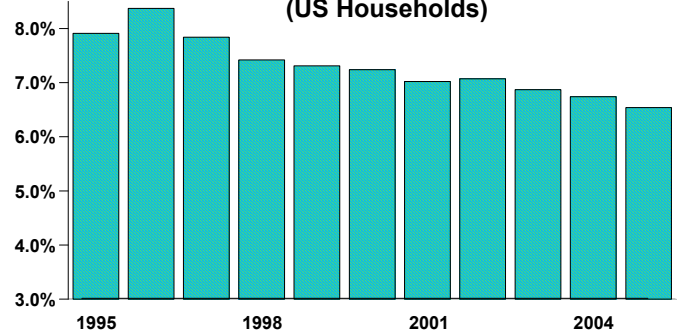


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## Expenditure Share

Share for Entertainment & Total Telecom  
(US Households)



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## Future Demand & Market

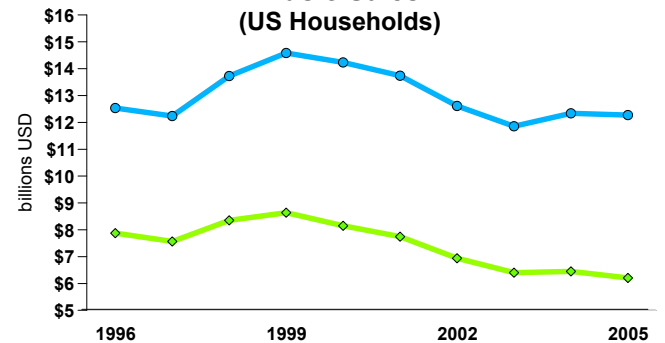
- Derived Demand
- Expenditure Share
- Music Downloads

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## Music Downloads

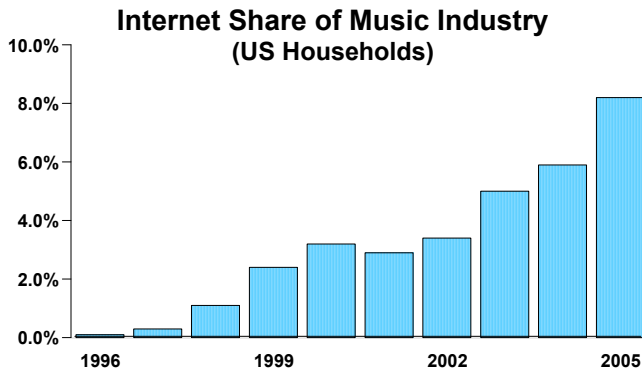
Music Sales  
(US Households)



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## Music Downloads



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## Future Demand & Market

- Derived Demand
- Expenditure Share
- Music Downloads
- Demand

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## Future Demand & Market

- Derived Demand
- Expenditure Share
- Music Downloads
- Demand
- Substitution

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## Demand for Triple-Play Services

Price	Elasticity
\$40	-0.23
\$50	-0.46
\$60	-0.69
\$70	-0.89
\$80	-1.10
\$90	-1.37
\$100	-1.45
\$110	-1.72
\$120	-1.83
\$130	-2.01

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## Expenditure Share

	Retail Sales (billions of USD)	E-commerce (billions of USD)	Growth	Growth E-com	Share of total
2000	\$2,989	\$27,765			0.9%
2001	\$3,068	\$34,517	2.6%	24.3%	1.1%
2002	\$3,134	\$45,001	2.2%	30.4%	1.4%
2003	\$3,265	\$56,644	4.2%	25.9%	1.7%
2004	\$3,477	\$70,906	6.5%	25.2%	2.0%

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## Future Demand & Market

- Derived Demand
- Expenditure Share
- Music Downloads
- Demand/Substitution
- VoIP

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## Expenditure Share

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### Price of Broadband Service

	DSL	
	Available	Not Available
Cable Modem		
Available	\$35.00	\$45.00
Not Available	\$43.00	

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## Future Demand & Market

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- Derived Demand
- Expenditure Share
- Music Downloads
- Demand/Substitution
- VoIP
- Mobile Telephony

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## Future Demand & Market

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- Derived Demand
- Expenditure Share
- Music Downloads
- Demand/Substitution
- VoIP/Mobile Telephony
- Competition

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## Future Demand & Market

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- Derived Demand
- Expenditure Share
- Music Downloads
- Demand/Substitution
- VoIP/Mobile Telephony
- Competition
- Elasticities & Regulation

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## Policy Framework

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- Last Kilometer
- A Note on Investment
- Last Kilometer - Reprise
- No Competition in Access
- Sunk Costs
- Regulatory Distortions
- Intermediate Pricing

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## Policy Framework

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- **Last Kilometer**

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## Policy Framework

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- **Last Kilometer**
- **A Note on Investment**

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## Policy Framework

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- **Last Kilometer**
- **A Note on Investment**
- **Last Kilometer - Reprise**

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## Policy Framework

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- **Last Kilometer**
- **A Note on Investment**
- **Last Kilometer - Reprise**
- **No Competition in Access**

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## Policy Framework

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- **Last Kilometer**
- **A Note on Investment**
- **Last Kilometer - Reprise**
- **No Competition in Access**
- **Sunk Costs**

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## Policy Framework

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- **Last Kilometer**
- **A Note on Investment**
- **Last Kilometer - Reprise**
- **No Competition in Access**
- **Sunk Costs**
- **Regulatory Distortions**

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## Conclusion/Future Research

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- Policymakers' Dilemma

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## Conclusion/Future Research

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- Policymakers' Dilemma
- Conclusion

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## Contact Information

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