



## (e)Governance: a research framework for an uncertain future

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## Research Motivation

- Different approaches to eGov research in different parts of the world
- Much speculation and debate on the future of eGov as a field of study
- Most extant research takes short term view. Almost all eGov development takes a short term view.
- Future of eGov research and practice depends on a vision for the future of ICT-enabled government and governance
- eGovRTD2020 project developed future scenarios and research themes that address the gaps between those futures and today –
  - Implications are long term, complex, dynamic

The world of e-governance



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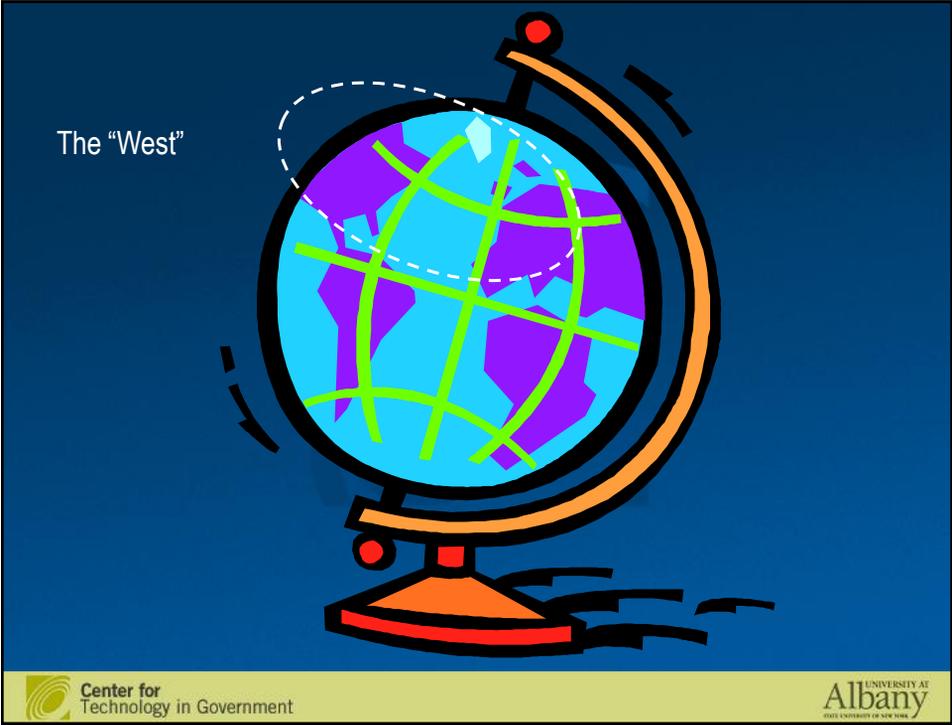
Context, context, context



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## Global context for the eGov story

- Rapid aging of the most highly developed countries
- Burgeoning population growth in the poorest countries
- Stunning economic growth in China and India, with attendant problems and benefits
- International migration toward jobs and economic opportunity
- Rapid diffusion of ICTs, especially mobile communications
- Continuing globalization
- International cooperation and competition
- Blurring of public and private roles and responsibilities
- Vulnerability of networks that control fundamental social, economic, and governmental processes
- Movement toward democratic forms of government and open markets
- Administrative reform strategies that include IT strategies



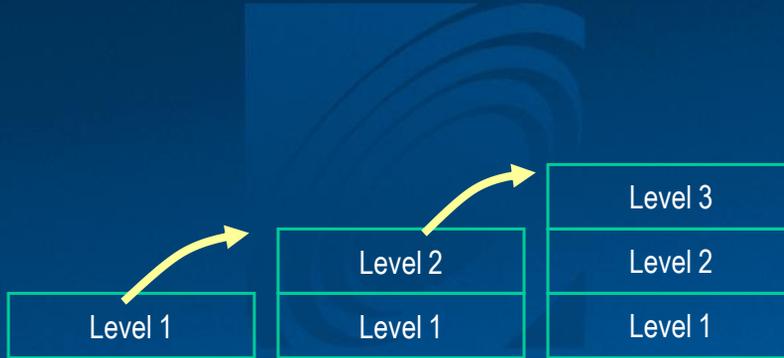
## Purpose & goals of (e)Gov

- Developed world
  - public services, good management, cost-effectiveness, technological advancement, competitiveness
- Developing world
  - transparency, accountability, knowledge economy, sustainable development, ICT infrastructure, content creation
- Least developed world
  - stability and rule of law, basic economic security, communication, education, human and social development
- Everyone
  - Security, equity, inclusion, access, competence

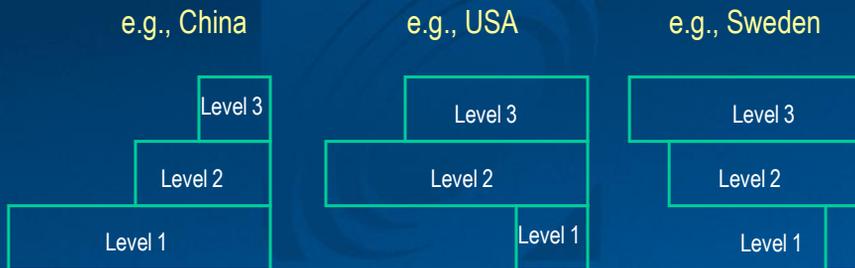
## Linear development model



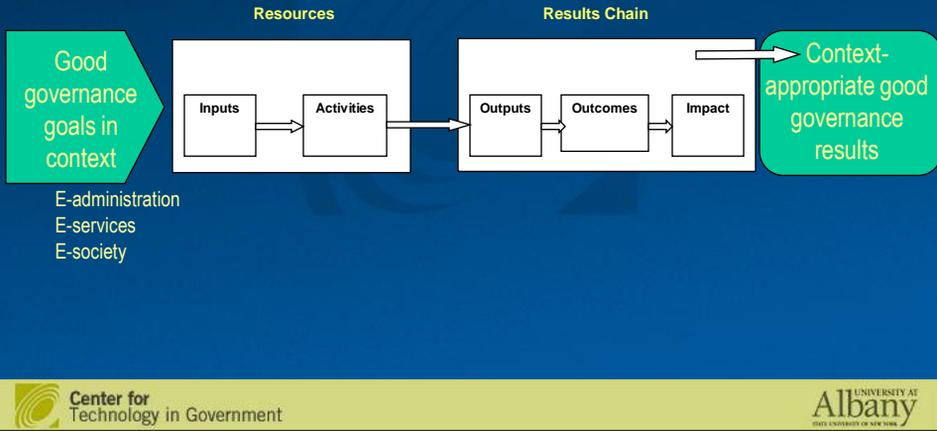
# Cumulative development model



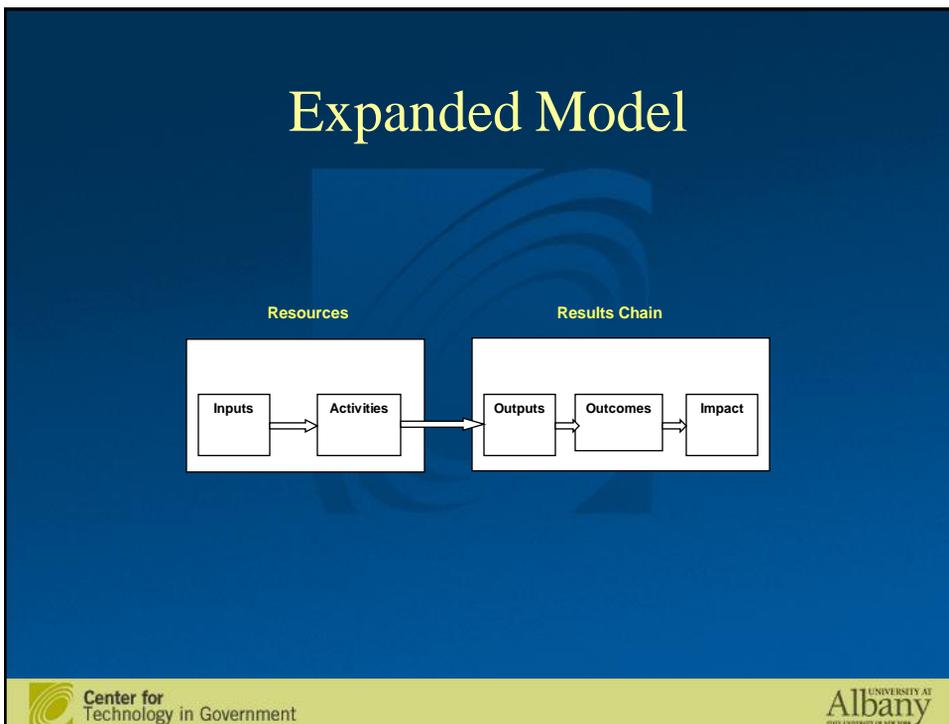
# Mixed development model

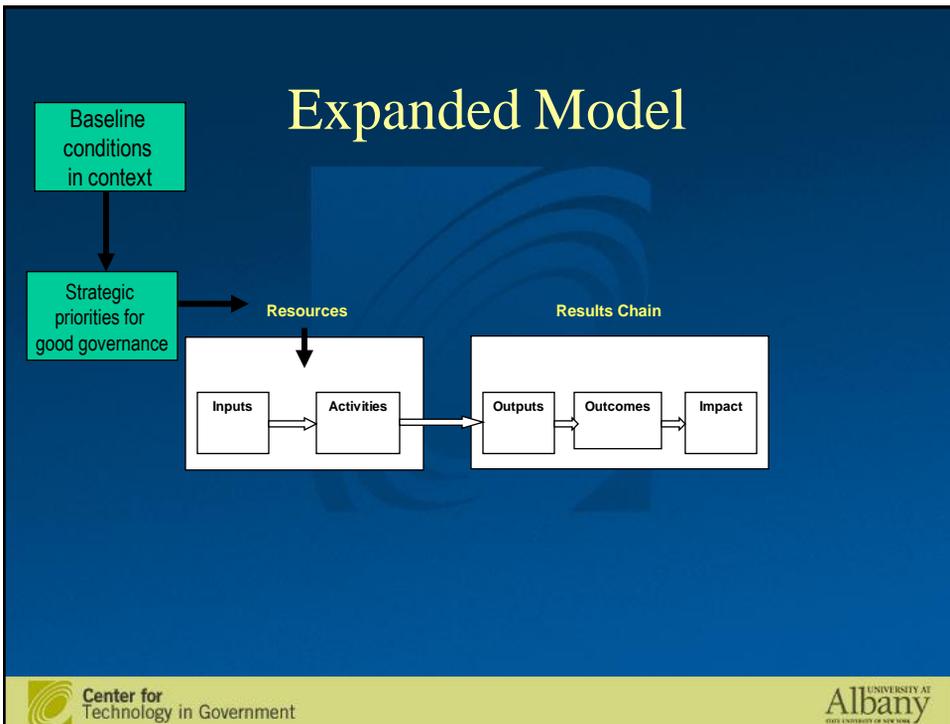
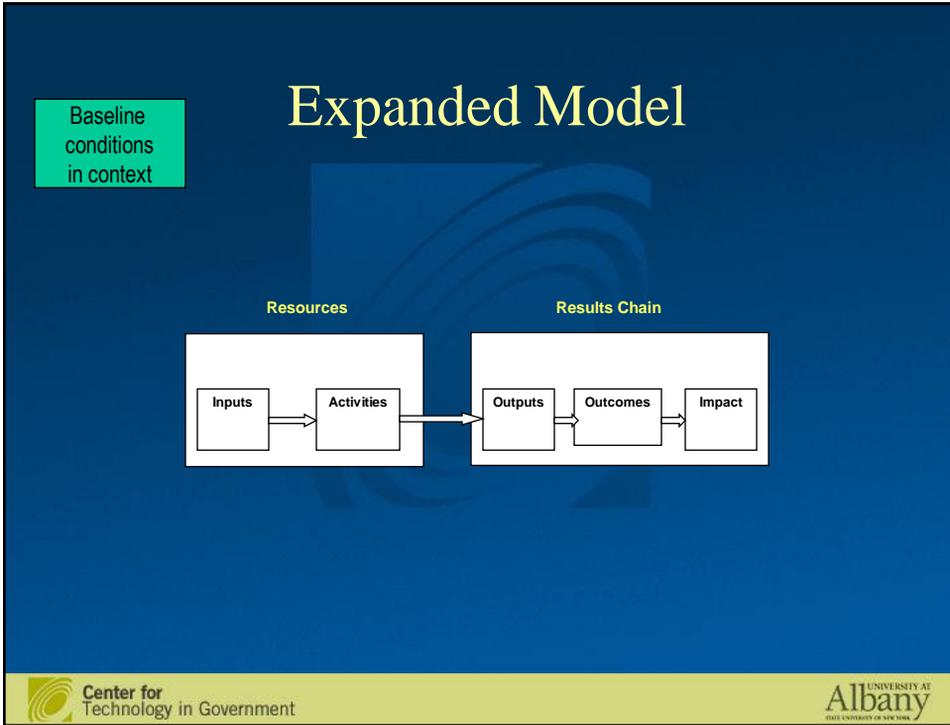


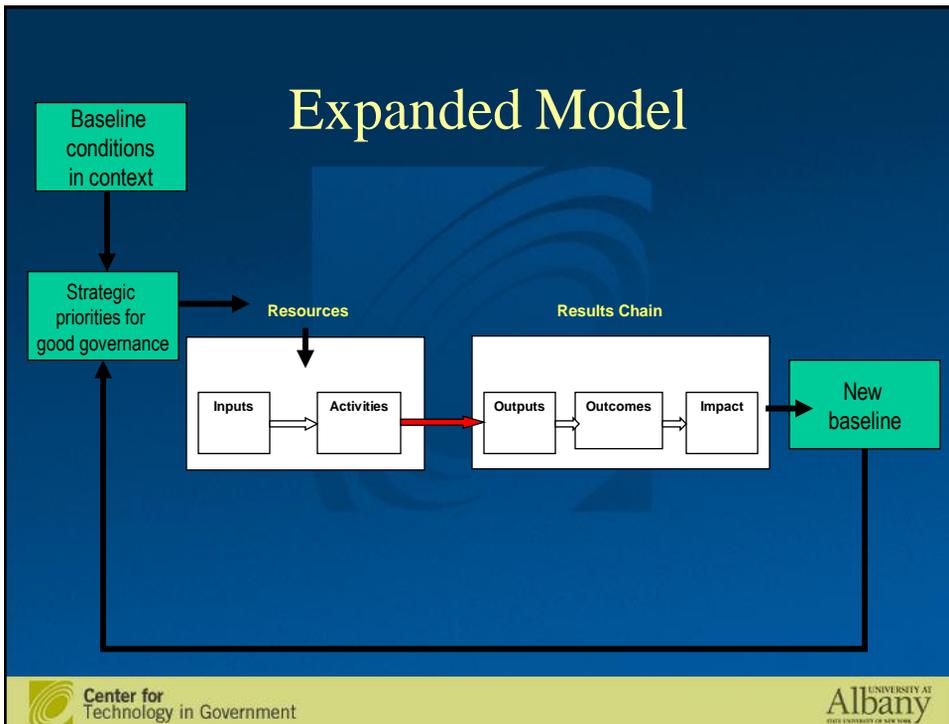
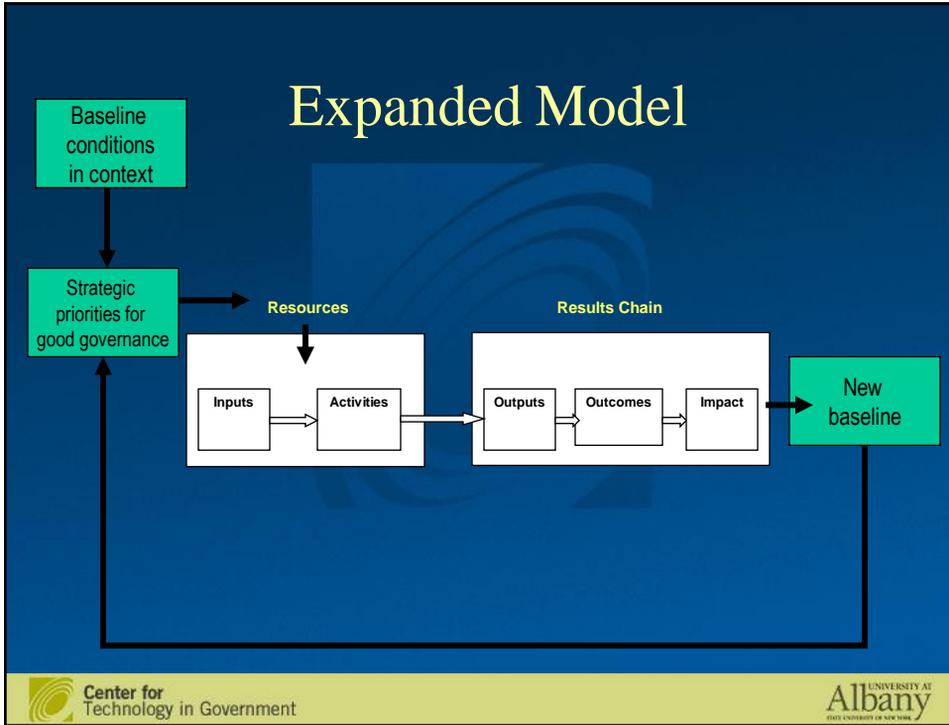
# Evaluation Model

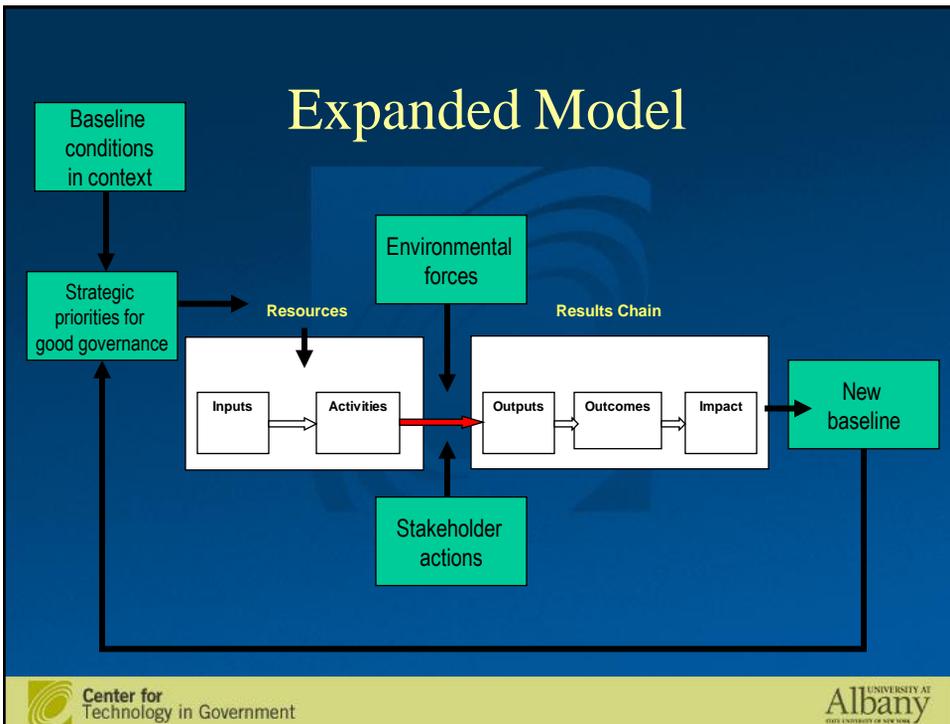
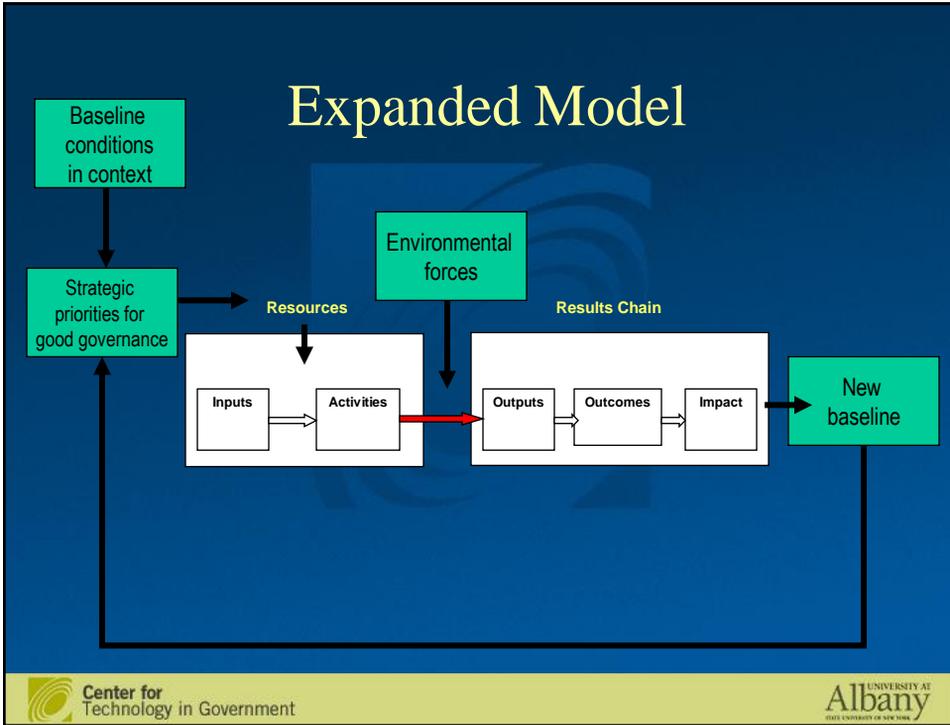


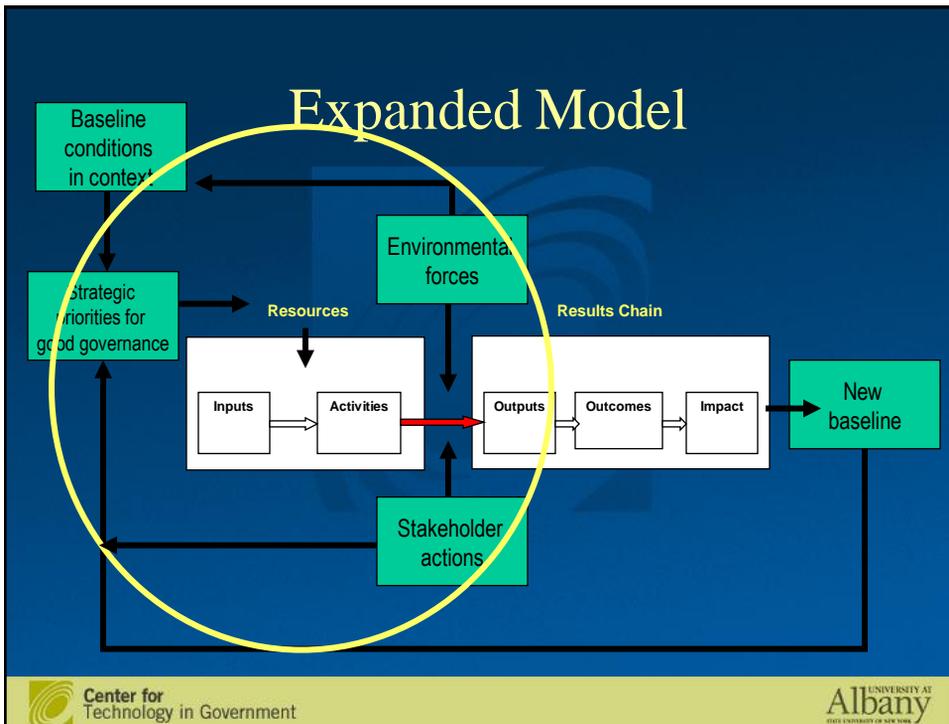
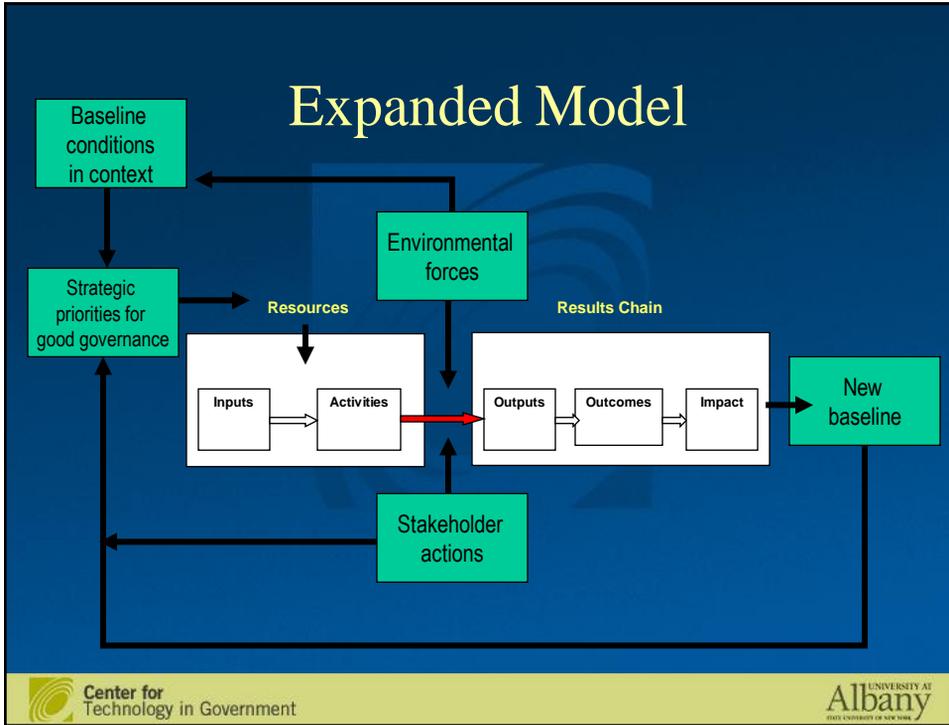
# Expanded Model











# Research Question

What factors, trends, and conditions are most likely to shape the future of (e)Governance?

## Consensus on future themes

- Data privacy and personal identity
- Trust in e-government
- Information quality
- E-participation, citizen engagement and democratic processes
- Ontologies and intelligent information and knowledge management
- Governance of public-private-civic sector relationships
- Assessing the value of government ICT investments.
- Mission-oriented goals and performance management
- Crossing borders and the need for governance capabilities
- Government's role in the virtual world
- eGovernment in the context of socio- demographic change
- Semantic and cultural interoperability of public services
- Cyberinfrastructures for eGovernment



## Content analysis

- Data set: working documents and work products of eGov2020
  - State of play report, workshop reports, scenarios, gap analysis, roadmap reports, working papers
- Select recurring elements, clusters of ideas, and conceptualize an arrangement that would be useful for considering the future of eGovernance
- Consider these against other work that is more global in scope (eg. UN studies, reports of general economic trends, etc.)

## Clusters

- Purpose & role of government
- Societal trends
- Changing technologies
- Information management
- Human elements
- Interaction and complexity

## Purpose & role of government

- legal framework within and across nation-states
- models and methods for assessing the performance, integration, and the public value of eGovernance
- distribution and exercise of governmental power and responsibilities including accountability, transparency, and stewardship
- influences of actors outside of government
- capabilities of the civil service
- efficiency and effectiveness of processes and practices, and diversity of governmental organizations



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## Societal trends

- age distribution, birth rates, and migration
- globalization, multi-culturalism, privatization, and institutional change
- political participation, social tensions, sectarian conflicts, and the digital divide
- economic conditions, geographic mobility, and the global distribution of wealth, jobs and workers



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## Changing technologies

- technologies that do not depend on place or device
- ubiquitous sensors capable of automatic data gathering and monitoring.
- intelligent agents, reasoning, interfaces, and forensics
- architectures, shared services, security, authentication, and reusable building blocks
- social networking software, visualization, and virtualization to explore, or exploit, new communities and relationships.

## Information management

- Assuring the definition, quality, and integrity of information content
- Information repositories such as digital libraries and archives
- Tools for information access, use, analysis, and preservation such as search and retrieval, ontologies, knowledge management, and information forensics

## Human elements

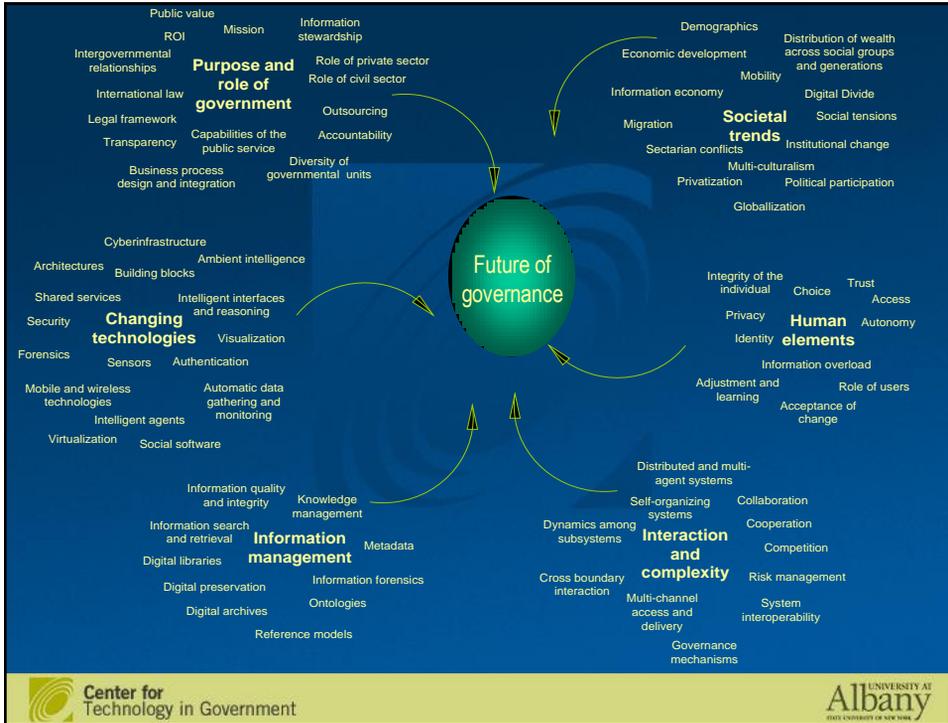
- integrity of self, identity, autonomy, personal choice, privacy, trust
- adjustment and learning, and acceptance of change
- ability and means of access to information, ability to deal with information overload
- role and influence of users in the design and operation of systems that affect them



## Interaction and complexity

- challenges of crossing technical, organizational, institutional and personal boundaries
- Technical: multi-channel access to information and services, system interoperability, and distributed and multi-agent systems
- Social: all kinds of cross-boundary interactions including schemes of collaboration, cooperation, and competition as well as complex communication, management, and governance mechanisms
- Both: risk management and the ability to discern, understand, and respond to both planned and unexpected dynamics among systems and subsystems.





## Research implications

- A larger, more nuanced, and potentially more holistic research portfolio
- A framework for integrating research results
- A way to see where research investments are needed, where they are being made, and where opportunities are being missed

## Sample research questions

- What governance mechanisms are needed to oversee and assure the quality and integrity of a ubiquitous cyberinfrastructure for eGovernment when essential governmental functions are distributed across the public, private, and nongovernmental sectors?
- What are the necessary elements of an international legal framework for authenticating and protecting personal identity? What are the risks, benefits, and costs and how are they distributed across stakeholders?

## Practice implications

- A framework to assist policy makers and managers to consider policy options and their likely effects in a broader context.
- A framework for assessing the completeness, efficacy, and possible unintended consequences of eGovernance policies and strategies
- Sample policy question: what is the “total cost of ownership” of an eGovernance initiative and how is it distributed among organizations, groups, and individuals?

## Conclusions

- Future eGov research agendas can (should?) be built around future visions for government and society
- Certain themes that will shape the future have world-wide import, but will play out and interact in both expected and unexpected ways in different places
- Therefore, no one future is “best” or “ideal” in all contexts
- The themes provide a parsimonious analytical framework for planning and evaluating eGov practice, and for designing eGov research in any context
- The framework itself needs assessment and validation

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