

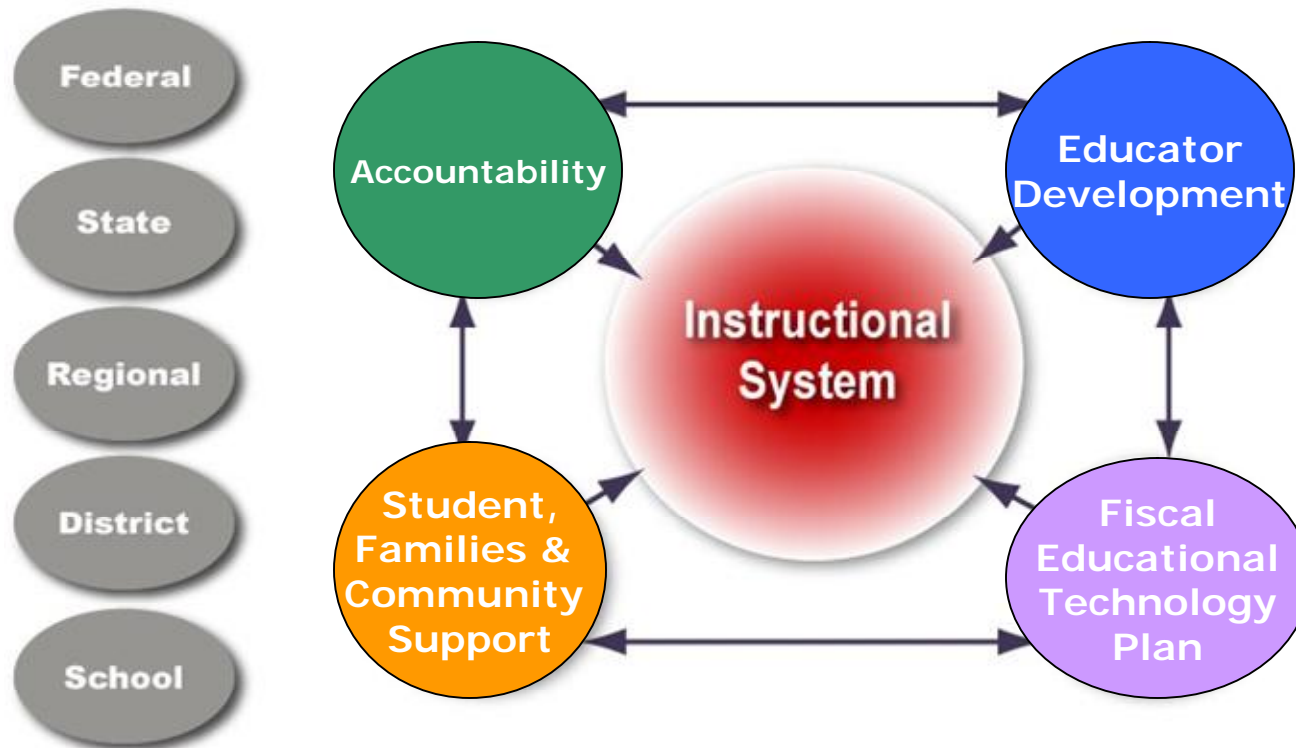
Corporation
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***Moving From An Analog To Digital
Culture In Science Education***

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A Systems Approach to Education



Federal

- n **Standards, Assessments, Curriculum Frameworks**
 - n 49 states and territories support common core standards
 - n US Department of Education – 375 million of RTTP new assessments
- n **Educator Development**
 - n Digital Teaching Corp.
 - n Technological pedagogical content knowledge for educators
 - n NCATE/AACTE integration of education technology, teacher education, and scientists
- n **Students, Families and Communities**
 - n Pre-K
 - n After-school
 - n Community Engagement

Federal

n Fiscal

- n National Broadband Plan/FCC
- n E-Rate
- n Title I/Special Education/Federal Innovation Dollars

n U.S. Department of Education Technology Plan

- n Edtechfuture.org
- n Public Service Media

n Accountability

- n Pay for performance for teachers
- n Knowledge, interest, skill, behavior of students

State

n Standards and Assessments

- n Revise standards and assessments, and curriculum frameworks to align to new common core science standards
- n Delineate when science gaming makes sense

n Educator Quality

- n Invest in cross-disciplinary collaborations in institutions of higher education
- n Revise teacher certification standards
- n Support communities of practice

n Students, Families and Communities

- n Develop PEP (personal education plans)
- n Support Early Childhood Education
- n Support After-School Initiatives
- n Fund Family Games

State

n Fiscal

- n State software purchases (refine textbook funds)
- n State-wide marketing and distribution plans

n Accountability

- n User acquisition metrics - linked to student performance data

n Education Technology Plan

- n Available computer hardware and software
- n Elimination of firewalls
- n Distribution and marketing plans of games
- n Broadband access and equity
- n Include public service media

District

n Standards and Assessments

- n District/school improvement plans
- n Use of games as formative assessments

n Educator Quality

- n Professional development programs
- n Teachers as facilitators – coequals

n Students, Families and Communities

- n PEP (personal education plans)
- n Intergenerational communications with teachers, students and parents
- n Pre-school
- n After-school
- n Community-based sites (libraries)
- n Community availability of computer labs

District

n Fiscal

- n District licensing/purchasing re allocations of Title I, special education, and professional development dollars

n Accountability

- n Linking games to students content knowledge, attitudes, behaviors and skills

n Education Technology Plan

- n Purchase of X-Boxes, MP3 Players
- n Broadband
- n Larger ram capacity
- n Elimination of firewalls
- n Computer laboratories open 24 hours
- n Public service media

Schools/Classrooms

Gaming Schools/Laboratories

n Standards and Assessments

- n Do games transfer to learning standards?
- n What type of assessment data (formative/summative) can be gained from games?

n Educator Quality

- n What technological pedagogical content knowledge is required?
- n What is the creative coupling of educational media to effective pedagogy?

n Students, Families and Communities

- n Do games change relationships among students, teachers and parents?
- n Is learning reinforced after-school, at home and with peers?

Schools/Classrooms/ Gaming Schools/Laboratories

n Fiscal

- n Is their enough hardware and software?
- n Are enough dollars at school level for training?
- n Can games be part of a school's discretionary budget?

n Accountability

- n Does learning the game transfer to increased knowledge, skills, attitudes and behaviors?

n Education Technology Plan

- n Is there supplemental access to Broadband?
- n Do schools have access to X-Boxes, MP3 Players?
- n Do schools have access to computers/hand-held devices?
- n Can schools work with public media stations?