MEMORY, ESTATES and LEGACIES in a DIGITAL WORLD
REQUEST FOR PROPOSALS

Imagine a digital estate of content, data, services, and tools that supports an individual’s activities and experiences in context - special purpose, life-long or life-wide?

mediaX seeks to fund thought leadership and concept-proving research that can lead to insights for the creation of estates and legacies in a digital world. We invite faculty-led teams across all disciplines to engage in research to define the requirements for digital estates, particularly in creating a secure, lasting and holistic environment for digital assets that arise from one’s learning and experiences. The research is expected to include or lead to experiments that consider a multitude of aspects and build on the state-of-the-art approaches in relevant areas such as personal records and identity management, curation and publishing of learning and experiences, academic e-portfolios and outcomes, knowledge acquisition and sharing in collaborative learning environments, and legal frameworks for digital rights to one’s legacy.

As a first step, this RFP aims to encourage methodical and creative investigations to conceive and implement research about digital estates for individuals in different life-stages and circumstances, from early childhood, in school and out of school studies, professional training, hobbies, retirement, and sharing of one’s intellectual or experiential legacy. Priority is faculty-led research leading to follow-on funding. We offer ideas to spark but not constrain exploratory research objectives:

• What research will generate insights needed to establish requirements for computing and information architectures to unify the multiplicity of personal devices, services, tools and content flows to create a coherent, authentic and empowering experience of a secure digital home, over time?

• How might use cases embedded in new technologies, such as immersive reality, personal analytics, remote collaboration, 3D modeling, games, crowdsourcing, and ubiquitous sensing, provide insights to shape the design of knowledge collections and digital estates?

• What impact on identity can be anticipated as disparate personas and social circles intertwine in digital legacies? How can identity be both machine- and human-readable? How can support for self-reflection and personal re-invention be conceived and optimized for different stages of education and professional development, to assist with tracking, recognition and validation of continued learning, and how this would be similar or different for healthcare records, family trees, albums, multimedia files, music, videos, etc.? How can we understand time- and context-dependent changes in design requirements?

• What use cases and models might be explored to conceive the legal, economic or administrative frameworks needed to sustain and manage digital estates and their ecosystem, particularly in relation to educational organizations, enterprises, service programs, or memory institutions? How can insights from social sciences illuminate the implications of life-long digital memories on the human life, relationships, culture, and society?

TIME AND SCOPE

Proposals from teams including one or more eligible faculty members are invited for projects of $15K to $50K. Proposals are due September 7th and will be reviewed by a faculty committee. Awards will be announced September 11, 2015, for work starting after September 15, 2015.

• A two-to-three page description of the research question, identifying relevance to digital estates as well as potential for thought leadership, and including brief bios of the project team, should be sent by September 7, 2015, 11:00PM PST to Martha Russell (martha.russell@stanford.edu).

• Using the same title as your proposal, send a separate description of requested resources by September 7, 2015 by 11:00PM PST to Martha Russell (martha.russell@stanford.edu).
BACKGROUND

Digital estate is a concept encompassing all aspects of one’s life that are touched by digital technologies. Digital technologies permeate many aspects of our lives, including information access, content creation, insight sharing, life-long and life-wide learning. People engage with digital information sources and build assets as they acquire knowledge, make informed decisions, and share insights with others. These activities help humanity advance. The fruitful exchange of information among individuals helps an information society function and prosper.

After five decades of personal computing, it is important to re-visit the common paradigms used in the design and delivery of digital technologies. The desktop metaphor for organizing and managing information has been transcended to include cloud services, mobile applications, sensor input, and machine-to-machine operations. Personal analytics have enabled the analysis of practices and physiological states to gain insights and tailor services to individuals and groups. Social computation, social media interactions, self-organizing enterprises, crowdsourcing models, and virtual reality have opened up new opportunities for engagements across the globe, transcending location and time.

Individuals engage with this rich ecosystem of digital technologies to create and use valuable digital assets that shape their lives and the society as a whole. The elements of a virtual legacy or personal digital estate are linked through the individual’s identity and personae. Ecosystem elements include school, employer and community portals and comprise both personal and institutional boundaries. Yet, at the moment, the ecosystem lacks user-centered organizing principles that would help people manage, reason about and assert control over digital interactions and digital possessions through a lifetime.

We put forward the notion of a digital estate as a new metaphor for situating digital activities and recognizing the self in the digital medium. The notion implies both privileges and responsibilities for owning a digital estate, as well as the ability to transact assets. It allows us to reason about the legal, economic, and societal frameworks within which we are empowered to acquire and use digital services, create, acquire, and share content, data and experiences, create and control digital personae and assets gleaned over life-times, and pass them on.

While the digital estate notion will have its own specific characteristics and requirements, we can draw an analogy that helps us imagine the future and articulate this vision. Akin to physical homes and services that support life within them, digital estates may comprise building blocks of hardware components, information architectures, algorithmic functions, communication services, security and privacy protections, legal frameworks for interacting with third parties, legacy relationships, and the social practices of sharing digital spaces. We seek to understand the requirements for leveraging these to enhance the human experience.

As a crucial step towards imagining the future of digital estates, we invite explorations that relate to learning and passing on knowledge. We build on the momentum established by initiatives in e-portfolios, assessment, certifications, and the frontiers of collaboration, crowdsourcing, privacy, and security. The ‘learning and education’ thread of digital estates spans all life stages, from first words as infants and kindergarten plays, to formal education, professional learning, work portfolios, leisure interests, collaboration with others (for example, publishing with colleagues or reading e-books with grandchildren), and recapitulating content for posterity.

FOR QUESTIONS:
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