Responding to Disruption

The Journalism Digital News Archive Initiative

Edward McCain, Digital Curator of Journalism
Donald W. Reynolds Journalism Institute / University of Missouri Libraries
In support of the instruction, research, service and economic development programs of the University, the MU Libraries acquire, preserve and make accessible scholarly resources; provide instruction, develop innovative services and apply new information technologies to achieve a single overarching purpose: to serve the needs of our users.

“A Library That Works”
“The Donald W. Reynolds Journalism Institute engages media professionals, scholars and other citizens in programs aimed at strengthening journalism in the service of democracy. RJI generates and tests new techniques and new thinking that promise to improve journalism.”
Case Study Analysis
Systems Thinking Solution
Responding to Disruption
The Journalism Digital News Archive initiative
RIP Tucson Citizen 1870-2009
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
The Tucson Citizen Morgue
Citizen Online Archive, 2006-2009
This archive contains all the stories that appeared on the Tucson Citizen’s website from mid-2006 to June 1, 2009.

In 2010, a power surge fried a server that contained all of videos linked to dozens of stories in this archive. Also, a server that contained all of the databases for dozens of stories was accidentally erased, so all of those links are broken as well. However, all of the text and photos that accompanied some stories have been preserved.

TucsonCitizen.com beta version launched today
by Mark B. Evans on Jun. 01, 2009, under Local

UPDATE: We’re working out some last minute glitches and the new site should be ready soon.

At about noon today, we will switch over to the beta version of the new TucsonCitizen.com.
Arizona breaks homer record in win
by Tucson Citizen on May. 16, 2009, under Sports

Citizen Staff Report
THE FINAL EDITION

Citizen Staff Report

The Arizona softball team broke the national home run record as it beat Tennessee-Martin 9-3 on Friday afternoon in an NCAA regional game in Louisville.

The Wildcats advance to play Louisville at 7 a.m. Tucson time Saturday.

The record-breaking blast came from Stacie Chambers in the third inning. That was the 127th home run of the season for UA, breaking the record held by Arizona’s 2001 team.

“I do not think they give a national championship on home runs,” said UA coach Mike Candrea in a news release. “It is games that you have to win.”

Sarah Akamine (20-6) was the winning pitcher for the Wildcats. She pitched the first three
The Tucson Citizen Morgue
What happened?
What happened?

Percentage Change in Audience 2010-2011

- Digital: 17.2% (2010-2011)
  - 7.2% (2011-2012)
- Network TV: -1.9%
- Local TV: -6.5%
- Audio: -0.1%
- Cable TV: 1.0%
- Magazines: 1.0%
- Newspapers: 1.0%

JDNA

What happened?

Google Rakes In More Ad Dollars Than U.S. Print Media

Advertising revenue in billion U.S. dollars

* Excludes advertising on newspaper websites

Source: Google, NAA, PIB
What happened?

Sorry, Craig: Study Finds Craigslist Took $5 Billion From Newspapers

For years, newspaper publishers have been saying Craigslist cut the legs out from under their industry by offering a cheap, easy online alternative to their classified advertising pages. For years, Craigslist's creator, Craig Newmark, has been refusing to shoulder the blame.

As recently as this week, in fact, he was insisting it was still far from a settled question. “I'm still waiting to see any hard evidence for cause-and-effect,” he told the New York Times. “I've been paying attention for a long time.”

Well, Craig, you can stop waiting. A new study by two business school professors examined the issue and concluded that, indeed, Craigslist took a giant bite out of newspapers' revenues — some $5 billion between the years 2000 and 2007. And that's not even looking at the Times, the Wall Street Journal or USA Today, which the authors left out in order to have a more homogeneous sample.

“Our study definitely suggests that Craigslist has had a huge effect on newspapers,” says Robert Seamans, an assistant professor of management and organizations at the NYU Stern School of Business. Coauthored with Feng Zhu of Harvard Business School, the paper will be published by the journal Management Science.
What happened?

Photographers Among Those Hit Hardest by Job Cuts

Number of U.S. newspaper jobs, by job category

- Reporters, writers: 25,593 jobs remaining, 30,000 jobs, percent change -32%
- Copy editors, layout editors, online producers: 10,901 jobs remaining, 20,000 jobs, percent change -27%
- Photographers, artists, videographers: 6,171 jobs remaining, 10,000 jobs, percent change -43%

Source: American Society of News Editors
PEW RESEARCH CENTER

www.pewresearch.org/fact-tank/2013/11/11/
What happened?

Real U.S. GDP vs. Employment
2002:Q1 to 2012:Q3

Billions of 2005 Dollars

+2.2%

-3.8m jobs

Recession

Sources: BEA, BLS

Carpe Diem Blog

Thousands of Persons

150,000

148,000

146,000

144,000

142,000

140,000

138,000

136,000

2002

2004

2006

2008

2010

2012

$14,000

$13,600

$13,200

$12,800

$12,400

$12,000

$11,600

$11,200

JDNA
What happened?

Citizen Library

- Clippings
- Microform
- Photographs
- Digital Formats
What happened?

Citizen Library
# Gannett Newspapers

- USA Today
- The Montgomery Advertiser
- The Arizona Republic, Phoenix
- The Tucson Citizen
- The Baxter Bulletin
- The Desert Sun, Palm Springs
- The Salinas Californian
- Tulare Advance-Register
- Visalia Times-Delta
- Fort Collins Coloradoan
- The News Journal, Wilmington
- Florida Today, Brevard County
- Fort Myers News-Press
- Tallahassee Democrat
- FSView & Florida Flambeau
- Central Florida Future
- Seminole Chronicle
- Pacific Daily News, Hagatna
- The Indianapolis Star
- Journal and Courier, Lafayette
- Chronicle-Tribune, Marion
- The Star Press, Muncie
- Palladium-Item, Richmond
- The Des Moines Register
- Iowa City Press-Citizen
- The Courier-Journal, Louisville
- The Town Talk, Alexandria
- The Daily Advertiser, Lafayette
- The News-Star, Monroe
- Daily World, Opelousas
- The Times, Shreveport
- The Daily Times, Salisbury
- Battle Creek Enquirer
- Detroit Free Press
- Lansing State Journal
- Times Herald, Port Huron
- Press & Argus, Livingston County
- St. Cloud Times
- Mississippi
- Hattiesburg American
- Springfield News-Leader, Springfield
- Reno Gazette-Journal
- Asbury Park Press
- Courier-News, Bridgewater
- The Courier-Post, Cherry Hill
- Home News Tribune, East Brunswick
- Daily Record, Morristown
- The Daily Journal, Vineland
- Ocean County Observer, Toms River
- Press & Sun-Bulletin, Binghamton
- Star-Gazette, Elmira
- The Ithaca Journal
- Poughkeepsie Journal
- Democrat and Chronicle, Rochester
- The Journal News, Westchester County
- Asheville Citizen-Times
- Newspaper Network of Central Ohio
- Telegraph-Forum, Bucyrus
- Chillicothe Gazette
- The Cincinnati Enquirer
- Coshocton Tribune
- The News-Messenger, Fremont
- Lancaster Eagle-Gazette
- Mansfield News Journal, Mansfield
- The Marion Star
- The Advocate (Newark), Newark
- News Herald, Port Clinton
- Times Recorder, Zanesville
- Statesman Journal, Salem
- The Greenville News
- Link (magazine)

- Argus Leader, Sioux Falls
- Dell Rapids Tribune, Dell Rapids
- The Leaf-Chronicle, Clarksville
- The Jackson Sun
- The Daily News Journal, Murfreesboro
- The Tennessean, Nashville
- The Spectrum, St. George
- The Burlington Free Press
- The News Leader, Staunton
- Door County Advocate
- The Post-Crescent, Appleton
- The Reporter, Fond du Lac
- The Green Bay News-Chronicle (folded 6/3/05)
- Green Bay Press-Gazette
- Herald Times Reporter, Manitowoc
- Marshfield News-Herald
- Oshkosh Northwestern, Oshkosh
- The Sheboygan Press
- Wausau Daily Herald
- Wisconsin Rapids Daily Tribune, Wisconsin Rapids
Gannett Newspapers

USA Today
The Montgomery Advertiser
The Arizona Republic, Phoenix
The Tucson Citizen
The Baxter Bulletin
The Desert Sun, Palm Springs
The Salinas Californian
Tulare Advance-Register
Visalia Times-Delta
Fort Collins Coloradon
The News Journal, Wilmington
Florida Today, Brevard County
Fort Myers News-Press
Tallahassee Democrat
FSView & Florida Flambeau
Central Florida Future
Seminole Chronicle
Pacific Daily News, Hagatna
The Indianapolis Star
Journal and Courier, Lafayette
Chronicle-Tribune, Marion
The Star Press, Muncie
Palladium-Item, Richmond
The Des Moines Register
Iowa City Press-Citizen
The Courier-Journal, Louisville
The Town Talk, Alexandria
The Daily Advertiser, Lafayette
The News-Star, Monroe
Daily World, Opelousas
The Times, Shreveport
The Daily Times, Salisbury
Battle Creek Enquirer
Detroit Free Press
Lansing State Journal
Times Herald, Port Huron
Press & Argus, Livingston County
St. Cloud Times
Mississippi
Hattiesburg American
Springfield News-Leader, Springfield
Reno Gazette-Journal
Asbury Park Press
Courier-News, Bridgewater
The Courier-Post, Cherry Hill
Home News Tribune, East Brunswick
Daily Record, Morristown
The Daily Journal, Vineland
Ocean County Observer, Toms River
Press & Sun-Bulletin, Binghamton
Star-Gazette, Elmira
The Ithaca Journal
Poughkeepsie Journal
Democrat and Chronicle, Rochester
The Journal News, Westchester County
Asheville Citizen-Times
Newspaper Network of Central Ohio
Telegraph-Forum, Bucyrus
Chillicothe Gazette
The Cincinnati Enquirer
Coshonot Tribune
The News-Messenger, Fremont
Lancaster Eagle-Gazette
Mansfield News Journal, Mansfield
The Marion Star
The Advocate (Newark), Newark
News Herald, Port Clinton
Times Recorder, Zanesville
Statesman Journal, Salem
The Greenville News Link (magazine)
Argus Leader, Sioux Falls
Dell Rapids Tribune, Dell Rapids
The Leaf-Chronicle, Clarksville
The Jackson Sun
The Daily News Journal, Murfreesboro
The Tennessean, Nashville
The Spectrum, St. George
The Burlington Free Press
The News Leader, Staunton
Door County Advocate
The Post-Crescent, Appleton
The Reporter, Fond du Lac
The Green Bay News-Chronicle (folded 6/3/05)
Green Bay Press-Gazette
Herald Times Reporter, Manitowoc
Marshfield News-Herald
Oshkosh Northwestern, Oshkosh
The Sheboygan Press
Wausau Daily Herald
Wisconsin Rapids Daily Tribune, Wisconsin Rapids
GANNETT
It’s all within reach.

Gannett Newspapers  Gannett Broadcasting
Gannett Government Media  Newsquest (UK)
The Big Lead  Captivate Network  Clipper Magazine
Gannett Foundation  Gannett Digital  Gannett Healthcare Group
MMAjunkie.com  Pointroll Inc.  ShopLocal
GANNETT
It's all within reach.

- Gannett Newspapers
- Gannett Broadcasting
- Gannett Government Media
- Newsquest (UK)
- The Big Lead
- Captivate Network
- Clipper Magazine
- Gannett Foundation
- Gannett Digital
- Gannett Healthcare Group
- MMAjunkie.com
- Pointroll Inc.
- ShopLocal
World’s top 10 media conglomerates

comcast

The Walt Disney Company

TimeWarner

Viacom

News Corp

Liberty

CBS

Gannett

Sky

Bertelsmann
World’s top 10 media conglomerates

comcast
The Walt Disney Company
Time Warner
Viacom
News Corp
sky
CBS Corporation
Gannett
Liberty
Berndt Mann
# World's biggest public companies

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Country</th>
<th>Sales</th>
<th>Profit</th>
<th>Equity</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1767</td>
<td>Popular</td>
<td>United States</td>
<td>$2.2 B</td>
<td>$0.2 B</td>
<td>$35.5 B</td>
<td>$2.9 B</td>
</tr>
<tr>
<td>1768</td>
<td>AOL</td>
<td>United States</td>
<td>$2.2 B</td>
<td>$1 B</td>
<td>$2.8 B</td>
<td>$2.5 B</td>
</tr>
<tr>
<td>1768</td>
<td>Gannett</td>
<td>United States</td>
<td>$5.4 B</td>
<td>$0.4 B</td>
<td>$5.4 B</td>
<td>$5 B</td>
</tr>
<tr>
<td>1770</td>
<td>Hokkoku Bank</td>
<td>Japan</td>
<td>$0.8 B</td>
<td>$0.1 B</td>
<td>$41.3 B</td>
<td>$1.3 B</td>
</tr>
<tr>
<td>1771</td>
<td>CC Media Holdings</td>
<td>United States</td>
<td>$6.2 B</td>
<td>$0.4 B</td>
<td>$16.3 B</td>
<td>$0.2 B</td>
</tr>
<tr>
<td>1771</td>
<td>Quanta Services</td>
<td>United States</td>
<td>$5.9 B</td>
<td>$0.3 B</td>
<td>$5.1 B</td>
<td>$6.3 B</td>
</tr>
<tr>
<td>1773</td>
<td>Kimberly-Clark de Mexico</td>
<td>Mexico</td>
<td>$2.3 B</td>
<td>$0.3 B</td>
<td>$2.2 B</td>
<td>$9.6 B</td>
</tr>
</tbody>
</table>
What happened?

"Dramatic changes in our industry combined with the difficult economy ... means it is no longer viable to produce two daily printed newspapers in Tucson”

- Bob Dickey, president of Gannett's U.S. Community Publishing Division

Profits for Gannett and Lee's business partnership, Tucson Newspapers Inc., were $16.5 million in 2008 and its profit margins exceeded 19%

The news prompted Attorney General Terry Goddard to file a motion for a temporary restraining order and a lawsuit alleging that the Citizen's closure violates state and federal antitrust laws.
What happened?

Some factors:

- News library dependence entirely on funds from one organization
- Newspaper management slow to react to the Internet
- Other organizations created more attractive models for advertising
- Corporate focus on quarterly profits makes long-term investments less attractive
What happened?

Some factors:

- A joint operating agreement between the Citizen and Star had unexpected consequences
- News libraries seen as cost centers, not as assets
- Many potential news library stakeholders not part of the process
- No chain of custody in place for content
A systems thinking approach

- **Systems thinking** has roots in General System Theory advanced by Ludwig von Bertalanffy (1940s) and Ross Ashby (1950s)

- Systems thinking has been defined as an approach to problem solving, by viewing "problems" as parts of an overall system, rather than reacting to specific parts, outcomes or events and potentially contributing to further development of unintended consequences.
A system is a set of interacting or interdependent components which interact with each other within the system's boundaries to function as an integrated whole. The nature of the whole is always different from and greater than the sum of its unassembled individual parts.
Systems initiatives are organized efforts to improve a system and its impacts. They can be publicly or privately funded or a combination of the two.

Systems initiatives are also called systems building, systems change, or systems reform. Systems building often refers to efforts to create policies, funding, programs or services that make up the system. Systems change or reform efforts tend to take place on the “front lines” of practice.
Improving the political environment that surrounds the system so it produces the policy and funding changes needed to create and sustain it.

- Cultural Heritage
- Education
- Private Enterprise
- Journalism / Media
- Government
- Individual Users
Context — Improving the political environment that surrounds the system so it produces the policy and funding changes needed to create and sustain it.

- Government - influence policy makers to shape policy that supports media preservation
JDNA

Components → Context

www.buildinitiative.org
- Establishing high-performance programs and services within the system that produce results for system beneficiaries

- New Business Models
- Grant writing
- Preservation Services
- Asset mapping
- Inventory of Archives
- Service Coordination
- Marketing
- Training / Conferences
Components – Establishing high-performance programs and services within the system that produce results for system beneficiaries.

- Offer new business frameworks that leverage efficiencies in technology along with the market reach of long-tail monetization models.
Amazon started with *lots* of content and added personalization.

JDNA
Content can be a gateway to marketing other things
Components

- Establishing high-performance programs and services within the system that produce results for system beneficiaries

- Create a real-time online map of news archives showing their level of risk, research value, geographic representation, temporal coverage, completeness, diversity, copyright issues and unique qualities
JDNA Initiative

At-Risk Media Archives in the United States
Creating strong and effective linkages and access across system components that further improve results for system beneficiaries

- Journalists
- Archivists
- Corporations / Business
- Historians
- Legal Counsel
- Educators / Institutions
- Mass Media
- Genealogists
- Entrepreneurs
- Students
Creating strong and effective linkages and access across system components that further improve results for system beneficiaries

- Journalists
- Archivists
- Students
- Historians

- Educators
- Mass Media
- Genealogists
- Entrepreneurs
JDNA

Context

Components

Connections

Infrastructure
Infrastructure – Developing the support systems needed to function effectively and with quality

- Organizational structure
- Staff
- Communication systems
- Standards
- Timeline

- Collective goals
- Computer systems - software and hardware
- Measurable outcome data / Evaluation
- Research

www.buildinitiative.org

JDNA
Infrastructure — Developing the support systems needed to function effectively and with quality

- Website
- Monetization models
- Petascale servers
- Gamification
- Improve or replace OCR
- Crowdsourcing
Ensuring a comprehensive system is available to as many people as possible so it produces broad and inclusive results for system beneficiaries.

- Models
- Publicity
- Meetings / Conferences

- Partnerships / Federations
- Education
- Outreach
Ensuring a comprehensive system is available to as many people as possible so it produces broad and inclusive results for system beneficiaries.

- Open source software system as trusted third-party to provide preservation and access services for digital news content.
- Develop model using Columbia Missourian, KBIA and KOMU media assets as a test bed.
Ensuring a comprehensive system is available to as many people as possible so it produces broad and inclusive results for system beneficiaries.

- Facilitate public/private partnerships to underwrite the cost of archive preservation and access
JDNA

Context → Connections
Components → Infrastructure
Infrastructure → Scale
What if?
JDNA Rapid Response Team

- Monitoring of at-risk collections
- Agreements in advance of closing
- Ongoing relationship with archive owner
- Specialized equipment and software for accessing and downloading digital assets
- Logistics to move team in and out of site efficiently
- Coordination with appropriate cultural heritage organizations
A New News Archive Scenario

JNDA initiative saves Citizen archive - will be available online soon!

RJI / Missouri School of Journalism / MU Libraries save Arizona library

JDNA rescues Arizona news archive
Enhancing the newspaper industry
RJI at SXSW
POYi 70th annual winners announced
How RJI came to be on TV
Thank You!